ENGINEERING NEWS-RECORD

A WEEKLY JOURNAL OF CIVIL ENGINEERING AND CONSTRUCTION

Volume 149

★

JULY-DECEMBER, 1952

McGRAW-HILL PUBLISHING CO., INC.
330 WEST 42d ST., NEW YORK 36, N. Y.

Copyright 1952 by

McGRAW-HILL PUBLISHING CO., INC.

330 WEST 42d ST., NEW YORK 36, N. Y.

ENGINEERING NEWS-RECORD

INDEX

VOLUME 149 JULY-DECEMBER, 1952

A

Aeronautics

Air Force keeping security lid clamped tight, E. V. Huggins ..... Dec. 25 42
Airports
Airport hysteria ..... July 17 e152
Australia plans ..... Aug. 21 54
Canada—Saskatchewan runways completed ..... Nov. 27 45
Cleveland's hangar-fit Hopkins Airport to be built by private funds ..... Sept. 18 *49
Columbia-Lowndes County Airport (unit prices) ..... July 3 78
Corpus Christi, Tex., asphalt runway (unit prices) ..... Sept. 4 187
Fairfield, Calif. shops to be built ..... Aug. 14 123
Fallon, Nev. Navy airfield additional facilities (unit prices) ..... Sept. 4 187
Federal aid boost requested ..... Oct. 30 72
Federal aid for 1953 ..... July 17, 23; July 31 76
Fort Worth, Texas, helicopter landing strip ..... Dec. 25 *35
French airbase construction to be supervised by U. S. builders ..... Nov. 6 120
Greenland—Thule air base construction, V. B. Smith ..... Oct. 2 *22, e112
Greenland—Unveiling airbase ..... Sept. 18 68
Hangar
Frankfort, Germany, hinged-arched structures raised with winches ..... July 17 *36
London hangar and warehouse roofs supported by prestressed beams of 150 feet ..... Nov. 13 *61
Rio de Janeiro steel rigid-frame hangar ..... Dec. 18 *66
Standardized hangars cantilever 164 ft ..... July 31 *42
Standardized steel hangars ease plane maintenance at northern bases ..... Dec. 11 *38
Harlingen Air Force Base, Tex. (unit prices) ..... Aug. 21 94
Hot Springs, Ark. contractor wins judgment ..... July 25 26
Kansas City, Mo. industrial airport to be started ..... Oct. 16 n89
Mexico constructing new airports ..... Oct. 9 55
Miami constructing maintenance building ..... Oct. 2 *57
More air bases probed ..... Aug. 7 28
Morocco
Air base reports show odd contrast ..... Oct. 9 n24
Airbase reporting, Clair N. Morgenthaler ..... Dec. 25 12
Air base situation-marvel or muddle? ..... Oct. 9 e160
Moroccan base probe seen misfiring, Bill Kearns ..... Sept. 4 *71
Newark test tracks ..... July 3 *34
Omaha, Neb. control center for Strategic Air Command planned ..... Dec. 11 n*108
Philadelphia airport probe opens ..... Aug. 14 22
Philadelphia's airport terminal building design criticized ..... Oct. 30 n72
Phoenix, Ariz., control tower sits on steel tube ..... Aug. 7 *45
Ponca City, Okla. runway paving (unit prices) ..... Sept. 25 88
Sacramento-McClellan Air Force Base golf course confusion ..... July 3 27
Secret airbases ..... Oct. 2 e112
Toledo proposes novel financing ..... Nov. 13 149
Tucson, Ariz. runway rebuilt to accommodate bigger airplanes ..... July 10 *39
Veterans Assn. issues guides for appraisal on homes near airports ..... July 3 23
What measure size? I. A. Pasarew ..... July 10 11
Zanesville, Ohio, airport contractor sues the government for erroneous specifications ..... July 10 *103
Helicopter surveyors learn Alaskan terrain in California ..... July 24 *39
Air conditioning
Dallas, Tex. offering cooled houses ..... Aug. 14 *121
Spray system on roof of Lily-Tulip Cup Corp. reduces air conditioning plant ..... Dec. 25 *31
Air raid shelters—Dispersal planned as A-bomb defense ..... July 24 *48

Alaska

Alaska defense construction is pushed ..... July 31 *25
How the construction business goes in Alaska, R. H. Dodds ..... Dec. 11 *32
Lump-sum contracting program successful ..... Nov. 20 *28
$240-million program outlined ..... Dec. 11 n27

Aluminum

Aluminum Co. starts up another new plant at Rockdale, Tex. ..... Dec. 4 n*28
Aluminum Co. of America offers to construct plant near Skagway, Alaska (map) ..... Aug. 28 *21
Aluminum Co. of Canada sets up shop in the wilderness, L. L. Wise ..... Sept. 25 *82
Aluminum Ore Co.'s new bauxite plant starts ..... Oct. 23 n28
Canadian aluminum deal dies, planners eye Africa ..... Aug. 7 69
Emergency dam at Morgantown, W. Va. uses aluminum for main girder ..... Nov. 13 n*26
Gold Coast aluminum ..... July 17 78
Harvey Machinery Co. plans aluminum plant near Dalles Dam, Ore. ..... Dec. 4 n28
Third round of aluminum expansion; Olin enters field ..... Nov. 27 n71
U. S. annual aluminum capacity (table) ..... Aug. 28 22
U. S. Army Engineers design new "heavy" tactical bridge of aluminum ..... Oct. 23 *28
American Assn. of State Highway Officials Kansas City meeting, J. R. Carr ..... Dec. 18 *23
American Institute of Architects
New York convention ..... July 3 *30
American Institute of Timber Construction formed ..... Nov. 13 82
American Public Works Assn.
Biggest public works congress in its history ..... Sept. 4 77
American Society for Testing Materials 50th anniversary celebrated ..... July 3 29
American Society of Civil Engineers
Centennial of Engineering celebration ..... Sept. 18 *19
Centennial to be celebrated ..... Aug. 28 *24
InterAmerican convention held in Puerto Rico, Elsie Eaves ..... Nov. 27 *55
Metropolitan Section meets ..... Oct. 23 *27
American Trucking Assn. meeting ..... Oct. 16 n26

Aqueducts

Regina, Can. builds a 37-mile aqueduct ..... Sept. 18 *51
San Diego analyzes bids for second barrel ..... Dec. 11 n105
Architects
ENR analyzes 1951 architects' activity (table) ..... Nov. 13 149
Salary Stabilization Board defines professional engineer and architect ..... Aug. 7 25
Associated General Contractors meeting ..... Sept. 18 24
Associated General Contractors and American Public Works Assn. set up joint committee ..... Nov. 20 n56

Atomic Energy

Breeder reactor and steam-electric generator ..... Sept. 18 *23
May spark new boom in construction ..... Dec. 4 *22
Utah University buildings reactor ..... July 3 83

Atomic Energy Commission

Atomic research group to set up ..... July 17 75
Atomic timetable ..... Aug. 21 23
"Cheap" atomic reactor seen suitable for school experimental use ..... July 3 *82
Engineers searching for a place to build its gaseous diffusion plant ..... Aug. 14 26
Funds slashed by House group ..... July 3 21
Gaseous diffusion plant approved by Congress ..... July 17 23
Hanford expansion ..... Aug. 14 123
..... Aug. 21, 28; Oct. 23 29
Labor disputes hurt plants expansion ..... Aug. 21 23
Louisville turns down atom plant as area expands fast ..... July 3 *56
Maxon, McGraw get major contracts ..... July 24 23
Ohio plant power pact signed (map) ..... Oct. 16 22
Paducah, Ky. Executive "vacations" in the field, Dick Harwood ..... Aug. 28 *50
Labor troubles continue ..... Sept. 11 44
..... Dec. 11 n30
No-strike pact signed ..... Aug. 28 *26
Tied up by intra-union squabble ..... July 10 *28
Work force reduced as second phase is begun ..... Oct. 23 n29
Portsmouth, Ohio
New plant to be causes turmoil ..... Sept. 11 25
A. M. Kinney, Inc. to work on project ..... Sept. 11 71
Pre-work conference ..... Sept. 18 48
Project launched ..... Aug. 21 *21
Rail and highway lines pushed ..... Nov. 27 n*25
Temporary housing planned ..... Sept. 18 69

* Illustrated; e, editorials; n, news

Savannah River Project
Defense community works. M. Le-Bosquet Jr. ..... July 24 10
Hiring practice scored ..... July 31 *22
IBEW wins key election ..... Aug. 7 29
World's biggest sphere to house submarine aerctor near Schenectady ..... Oct. 23 *29
Atomic explosion
Dispersal planned as A-bomb defense ..... July 24 *48 e116
Where we stand on seismic and blast design ..... July 10 *30
Auditoriums, see Stadiums
Australia borrows externally for its development needs ..... Aug. 21 54

B

Barracks see Housing
Beach protection see Shore protection

Beams

Chart for direct concrete beam design. J. N. Robinson ..... Nov. 6 *45
How to lower prestressing costs. P. W. Abeles ..... Oct. 30 *32
Prestressed beams for Massachusetts bridges analyzed for costs (tables) ..... July 3, 103; July 10 e128
Blasting
Caltech scientists study effects of big blast ..... Sept. 4 147
Non-atomic blast in Utah sets record ..... July 17 24

Bonds

Bond yields (table) ..... Sept. 4 129
California legislature agrees on school fund ..... Aug. 21 89
Cleveland to vote on $54-million bond issue ..... Sept. 11 73
Georgia markets bonds to launch school program ..... Sept. 18 71
Housing bonds face new market troubles ..... Oct. 23 101
Houston, Tex. bond issues to be voted ..... Aug. 14 124
Jacksonville to vote on bond for electrical system ..... Aug. 14 124
Kansas City voters pass bond program ..... Aug. 14 123
Maine sells bonds for school buildings ..... Aug. 14 124
Milwaukee housing bonds face market trouble ..... Dec. 18 104
North Miami, Fla. industrial plant financing vetoed by Supreme Court ..... Aug. 14 52
Philadelphia to sell $30 million in bonds ..... Sept. 18 71
Port of New York Authority sells $35-million bonds in uneasy market ..... Dec. 18 *100
Power projects in the Pacific Northwest can be developed through sale of revenue bonds ..... Dec. 25 66
Providence bond issue awarded to Chicago group ..... Oct. 30 n75
Shelbyville, Tenn. vote $1 million to attract industry ..... Dec. 25 n65

Book Reviews

Buckling strength of metal structures. Friedrich Bleich ..... Nov. 6 91
Charting statistics. Mary Eleanor Spear ..... Oct. 9 48
Engineers and ivory towers. Hardy Cross ..... Oct. 30 55
Legal guide for contractors, architects and engineers. I. V. Werbin ..... Oct. 9 48
The resistance of piles to penetration. R. V. Allin ..... Oct. 30 55
Simple method for evaluating blast effects on buildings. Armour Research Foundation ..... Oct. 9 48
Soil engineering. M. G. Spangler ..... Oct. 30 55
Windowless structures—a study in blast-resistant design. Federal Civil Defense Administration ..... Oct. 9 48
Boy Scout camp construction helped by engineering ..... July 31 *46

Bridge Accidents and Failures

Boston
Overpass collapse ..... July 3 e128
Overpass collapse — controversial rocker. T. P. Young ..... July 24 *10
Viaduct support—rocker should be wheel. L. E. Moore ..... Aug. 7 13
Was viaduct support stable? R. M. Boynton ..... Aug. 7 *7
How careless! A. K. Wetzig ..... July 17 10
Roanoke River, N. C.
Bridge collapse contractor acquitted ..... Nov. 27 n72
Bridge collapse responsibility denied by contractor ..... Sept. 25 n85

Bridge Construction

Chesapeake Bay Bridge—pre-assembly pays on suspension span ..... Aug. 7 *40
Replacing old highway bridge with arch culvert and end walls of stone ..... Dec. 18 *52

Bridge Design

Advance in concrete arches ..... Sept. 11 e96
Amer. Inst. of Steel Const. selects "most beautiful bridges" ..... Sept. 25 p*24
Correction. L. A. Post ..... Oct. 30 9
Correction. C. G. Herbruck ..... Nov. 13 14
California tests aid bridge design ..... Oct. 23 *42
Cantilever construction of prestressed concrete girders eliminates falsework in German bridge ..... Dec. 11 *56
New York State Thruway—no bids cause change in Tarrytown bridge ..... Dec. 25 27
New York Thruway bridge foundations will be floating boxes of reinforced concrete similar to Pier 57 ..... Nov. 13 n27
Ohio concrete bridge made up of prestressed, precast beams ..... Oct. 16 *35
Rubber surfacing tried on Michigan Ave. Bridge, Chic. ..... Aug. 21 25
Spectacular Venezuelan concrete arch bridge ..... Sept. 11 *28 e96
Suspension — single-cable suspension bridge proposed in Sweden ..... Sept. 18 *22
U. S. Army Engineers design new "heavy" tactical bridge of aluminum ..... Oct. 23 *28
Welded bridge design competition awards made ..... Oct. 23 27

Bridges

Arizona
Steel windfall assures start on 4 bridges ..... Oct. 30 n72
Belgium
Tunnel, viaducts join rail stations in Brussels. G. N. Balbachevsky ..... Oct. 9 *40
Boston
Overpass collapse see Bridge Accidents
Brazil
Reinforced concrete arch bridge ..... July 10 64
Chamberlain, S. D.
Two bridges to form one crossing ..... Sept. 25 n46
Chesapeake Bay Bridge
Pre-assembly pays on suspension span ..... Aug. 7 *40
Chicago
Rascule bridge (unit prices) ..... Oct. 16 87
Rubber surfacing tried on Michigan Ave. bridge ..... Aug. 21 25
Dalles Bridge, Ore.
Bids offered ..... Oct. 23 n100
Germany
Cantilever construction of prestressed concrete girders eliminates falsework ..... Dec. 11 *56
Single rib arch bridge ..... Sept. 18 *52
Hampton Roads, Va.
Tunnel-bridge causeway recommended ..... Oct. 2 25
Idaho
Highway bridge (unit prices) ..... July 31 79
Indiana
Open-spandrel arch replaces covered bridge on state highway ..... Dec. 18 *37
Indonesia
Estimate made ..... Dec. 18 n69
Jacksonville
Bridge near completion ..... Dec. 4 *27
Kansas City, Mo.
Paseo Bridge construction started ..... Aug. 28 77
Lafayette, Ind.
Old highway bridge replaced bridge of arch culvert and end walls of stone ..... Dec. 18 *52
Lawrenceburg, Ind.
Toll bridge bids asked ..... Oct. 2 n87
Los Angeles
Overpass (unit prices) ..... Dec. 11 100
Louisville, Ky.
Two bridges over the Ohio River considered ..... Dec. 18 n22
Maryland—District of Columbia
Four span bridge over the Anacostia River (unit prices) ..... Dec. 25 62
McNary Dam, Wash.
Toll bridge planned near dam ..... Oct. 30 n71
New Orleans
Dispute about type of new bridge ..... Sept. 11 25
Overpass (unit prices) ..... Oct. 2 83
New York City
Queensboro bridge plans to add two lanes on upper deck ..... Nov. 20 n58
New York State Thruway
Concrete pillow caissons (unit prices) ..... Nov. 20 102
No bids cause change in Tarrytown bridge ..... Dec. 25 27
Pier foundations will be floating boxes of reinforced concrete similar to Pier 57 ..... Nov. 13 n27
Nigeria
Suspension bridge planned ..... Aug. 14 67
Ohio
Prestressing highway bridge ..... Oct. 16 *35
Ohio Turnpike
Bridge project delayed by railroad-turnpike commission disagreement ..... Dec. 18 n22
Oklahoma Turnpike
Prestressed concrete beams to replace steel in bridges ..... Sept. 18 n26
P. F. Blair Jr. ..... Nov. 27 12
Pasadena, Calif.
Steel falsework and forms moved ..... July 3 *25
Patapsco Development, Md.
Four steel bridges (unit prices) ..... Sept. 4 179
Philadelphia-Gloucester
Bridge to span Delaware ..... Aug. 7 24
Firms appointed to design bridge ..... Oct. 2 26
Pittsburgh
Fort Pitt bridge planned ..... Aug. 7 *36
Powell's Ferry, Tenn.
Commission picks site for new bridge ..... Nov. 27 n72
San Diego, Calif.
Highway overpass across Mission Valley freeway ..... Oct. 9 *39
San Francisco
Richmond-San Rafael bridge bond sale authorized. Oct. 2, 26; Nov. 20 108
Two new bay crossings under construction ..... Dec. 4 n26
San Francisco-Oakland Bay bridge
Bond test case ..... Aug. 14 26
Bonds suffer legal-setback ..... Dec. 18 25
Savannah River
Construction award made ..... Nov. 27 73
Seattle
Four Puget Sound crossings studied and one selected (maps) ..... Dec. 4 *26
Puget Sound gets bridge controversy ..... Dec. 11 n24
South Dakota
Three viaducts for highway (unit prices) ..... Aug. 14 n26
Straits of Mackinac, Mich.
Bonds to finance bridge ..... Dec. 25 n27
Suez Canal
Twin swing spans. S. Akerib ..... July 31 10
Sweden
Single-cable suspension bridge proposed ..... Sept. 18 *22
Tulsa
Half-mile bridge links Tulsa and West Tulsa ..... Aug. 21 *38
Utah
Highway bridge (unit prices) ..... July 24 92
Vancouver-Portland
Bridge may be financed ..... Dec. 11 n107
Venezuela
Spectacular concrete arch bridge ..... Sept. 11 *28 e96
Washington State
Highway overcrossing (unit prices) ..... Sept. 4 173
Toll bridge projects advance ..... Sept. 11 69

Building Accidents and Failures

Waffle roof collapse—diagonal tension blamed. D. B. Cheskin ..... July 3 10
faith in model analysis. Gerald Bowen ..... Oct. 9 14
shear broke slab? G. S. Pinter ..... July 3 10
Waffle roof failure explained. E. E. Seelye ..... Oct. 23 *10

Building Construction

Austin, Boeckh report higher building costs ..... Oct. 9 136
Bureau of Labor Statistics sees no drop in housing in 1953 ..... Oct. 30 n26
Chemical plants boom in Florida ..... Aug. 14 *120
Clay pipe air system prevents ground freezing in cold-storage building ..... Oct. 23 *63
Commercial building due to pick up ..... Oct. 30 n69
Costs
Building cost indexes compared (charts) ..... Sept. 4 *80
Classroom costs under fire in California ..... Sept. 4 159
Cool towers and conveyors for New York power plant ..... Sept. 4 160
Construction and building cost indexes 1913-1952 (chart) ..... Sept. 4 *80
Costs of sandwich-panel walls ..... Sept. 4 *144
Handy-Whitman index—public utility construction costs (tables) ..... Sept. 4 97
High, low and average building costs (chart & tables) ..... Sept. 4 *148
Index of building costs—U. S. average 1926-'29 (table) ..... Sept. 4 95
Indexes of cost 1926-1952 (tables) ..... Sept. 4 91
Kentucky's capitol office building ..... Sept. 4 *160
School building costs in California 1945-50 (tables) ..... Sept. 4 149
TVA steam power plant costs. Sept. 4 *163

* Illustrated; e, editorials; n, news

Credit relaxation may help home building and commercial construction ..... Sept. 18 27
Electronic manufacturing capacity ..... Aug. 14 121
Hinged-arch buildings raised with winches ..... July 17 *36
Industrial building awards climb ..... Nov. 6 *116
Industrial building 150% over 1950 ..... July 10 *101
Insurance companies urged to back commercial building ..... Dec. 18 104
Israel launches low-rent factory ..... Nov. 6 68
Levittown, Pa. . . . a city from scratch A. J. Fox Jr. ..... Dec. 4 *34
Lightweight fireproofing for steel framing ..... Nov. 6 *34
Louisiana's tax exemption plan brings industrial building boom ..... July 17 *130
Maryland's system for construction of state building to get an overhauling ..... Dec. 4 24
Massachusetts hammers out system for construction of public buildings ..... Oct. 30, 24; Nov. 6 24
Military service program for hospitals ..... Aug. 21 27
Mortgage trading market stirs action ..... Nov. 27 n71
New York City Bd. of Education moves to trim "gold plate" from schools ..... Sept. 18 37
New York City—deep basement wall shored by old steel as office building replaces the Ritz ..... Aug. 14 *45
Oxnard, Calif. housing project has gunited walls. J. B. Jessup ..... Nov. 6 *43
Prefabricated reinforced concrete panels tested to pare barrack costs ..... Oct. 30 41
Tennessee industry expands ..... Aug. 14 122
Tennessee paper mill will transform region ..... July 17 *48
Tilt-up wall warehouse, East Hartford, Conn. ..... Oct. 16 *37
Tilt-up wood frame walls cut labor costs in Buffalo housing projects ..... Nov. 27 *30
U. S. Army to build expansible hospitals ..... Aug. 14 *124
Veterans Administration in San Diego, Calif. persuades builder to replace defective houses ..... Sept. 4 249
Westinghouse seeks places to spend construction money ..... Oct. 2 *84
Wood researchers explore new construction methods ..... July 10 69

Building Design

Air Force "standard" maintenance hangar ..... July 31 *42
Alternate designs. H. M. Hadley ..... Nov. 20 14
Arlington, Va. nation's largest parking building; Hecht Co.'s shopping center ..... July 3 *34
Buffalo Medical and Dental School Design controlled by tight budget. J. N. DeSerio ..... Oct. 16 *41
Building Research Advisory Board talks on tropical building. F. Merritt ..... Nov. 27 57
CBS' $12-million TV studio in Los Angeles ..... Nov. 20 *34
Concrete buildings in Great Britain erected with welded reinforcing put up first ..... Aug. 7 *68
Contractor's office one story high in standardized building ..... Nov. 20 *37
Cotton mill's office building, Ft Mill, S. C., constructed like an inverted pyramid, upper floors overhang lower ..... Nov. 20 *26
Demonstration houses show new building ideas ..... July 3 84
Denver's commercial center planned to have 20-story main building. Dec. 18 *48
Earthquake resistant
Reader's Digest building in seismic test ..... Dec. 25 *36
Tacoma, Wash. precast plant built in earthquake region ..... July 24 *34
Earthquakes and bombs ..... Aug. 14 e148
East Orange, N. J. hexagonal classroom in elementary school. Aug. 7 comments O. F. Wenzley, H. E. Kentoff ..... Nov. 20 10
Fort Ritchie, Md. sub-Pentagon data disclosed by Army ..... Nov. 13 n*28
Fort Wayne, Ind. warehouse designed for comfortable heating ..... Oct. 23 *45
Fresh look at three lighting problems. H. L. Logan (charts). July 3 *40
Housing and Home Finance Agency recommends more realistic roof loads (maps) ..... Nov. 27 *81
Lift-slab of 1,000,000 lbs starts up for church roof in Los Angeles. Nov. 20 *44
Lily-Tulip Cup Corp. plant Springfield, Mo. has tunnels for service lines, cavity type masonry walls, spray system on roof ..... Dec. 25 *30
Miami airport's maintenance building design ..... Oct. 2 *57
Military services program for hospitals ..... Aug. 21 27
New York City
Bd. of Education moves to trim "gold plate" from schools. Sept. 18 37
Office building with eyebrows. July 10 *99
United Nations General Assembly building ..... Oct. 9 *26
Plastic fabric test roof held up by air ..... Aug. 7 *61
Prestressed girders support San Francisco garage floor ..... Nov. 13 *38
Raleigh, N. C., arena's steel catenary roof to be carried by oblique concrete arches ..... Oct. 2 *33
San Diego, Calif. portable classrooms ..... Oct. 2 *55
Snow loads—can they be reduced? R. R. Britton ..... Sept. 18 13
Television centers design and construction (map) ..... Dec. 11 *21
Underground construction
Aluminum Co. of Canada building the world's largest underground powerhouse. L. L. Wise. Sept. 25 *32
Nov. 13 *31
Underground power house for Aluminum Co. of Canada ..... Sept. 4 208
U. S. Army hospital design. Aug. 14 *124
Venezuela—Caracas builds a "Rockefeller Center" ..... July 10 *66
Where we stand on seismic and blast design ..... July 10 *30

Building Design see also Beams, Columns; Concrete, Girders, Heating & Ventilating, Roofs.

Building Laws and Regulations

Massachusetts hammers out system for construction of public buildings ..... Oct. 30, 24; Nov. 6 24
New York City building code to allow fly ash in concrete ..... Oct. 16 n26

Buildings

Alaska
Aluminum Co. of America offers to construct plant near Skagway (map) ..... Aug. 28 *21
Lump-sum program successful ..... Nov. 20 *28
Arlington, Va.
Hecht Co.'s suburban shopping center is nation's largest parking building ..... July 10 *34
Boston
Hospital work completed being studied ..... July 31 23
Buffalo
Medical and Dental School design controlled by tight budget. J. N. DeSerio ..... Oct. 16 *41
Tilt-up wood frame walls cut labor costs in housing projects. Nov. 27 *30
Charlestown, Ind.
Ordnance Works plagued by jurisdictional disputes ..... July 3 51
Chattanooga, Tenn.
Paper mill contract let ..... Aug. 21 90
Cleveland, Ohio
Concrete waffle formed with plastic pans for machine shop roof. Oct. 2 *39
Colombia
Hospital construction started. Dec. 18 n69
U. S. firm designs, builds alkali plant near Bogota ..... July 10 *61
Denmark
Brewery silo cells being built by slipform technique ..... Oct. 16 *53
Denver
Commercial center planned to have 20-story main building. Dec. 18 *48
East Hartford, Conn.
Tilt-up wall warehouse ..... Oct. 16 *37
East Orange, N. J.
Hexagonal classrooms in elementary school ..... Aug. 7 *46
comments O. F. Wenzley, H. E. Kentopp ..... Nov. 20 10
Florida
Chemical plants boom in Florida ..... Aug. 14 *120
Tilt-up forms pare building costs ..... Nov. 13 *72
Fort Knox, Ky.
Military construction program booms ..... July 17 *26
Ft. Mill, S. C.
Springs Cotton Mills office building built like an inverted pyramid ..... Nov. 20 *26
Fort Ritchie, Md.
Army discloses data on sub-Pentagon ..... Nov. 13 n*28
Fort Wayne, Ind.
Designing a well-heated warehouse ..... Oct. 23, *45
Frankfort, Ky.
Capitol office building costs. Sept. 4 *160
Garden Bay, La.
Freeport Sulphur plant building ..... Nov. 20 *25
Glens Falls, N. Y.
Contractor's office one story high in standardized building. J. M. Werblow ..... Nov. 20 *37
Great Britain
London Airport hangar roofs supported on prestressed beams ..... Nov. 13 *81
Harrisburg, Pa.
Capitol building to be renovated ..... Oct. 2, 56; Oct. 9 72
Japan
Reader's Digest building in seismic test ..... Dec 25 *36
Joliet, Ill.
Caterpillar plant—correction C. S. Freund ..... July 31 12
Kansas City, Mo.
Hallmark plant will have 7 "ground" floors ..... Dec. 11 n*106
La Platte, Neb.
Fertilizer plant ..... Aug. 14 123
Lawrence, Mass.
Lawrence Experiment Station planning new building ..... Aug. 7 *56
Long Beach, Calif.
Richfield Oil Corp. to expand. Aug. 14 123
Los Angeles
CBS' $12-million TV studio ..... Nov. 20 *34
Church roof is lift-slab of 1,000,000 lbs ..... Nov. 20 *44
County building contract creates dissension ..... Dec. 25 n66
Schlitz plans brewery ..... Aug. 21 89
VA hospital bids opened ..... Aug. 28 77
Madison, Wis.
Plastic fabric test roof held up by air ..... Aug. 7 *61
Mexico City, Mex.
Palace of Fine Arts has settled 80 in below original level ..... Aug. 21 *51
Miami
Airport maintenance building in construction ..... Oct. 2 *57
Minneapolis, Minn.
Prudential Insurance Co. building site dispute loses customer Nov. 13 53
Prudential Insurance Co. decides to build office in city ..... Nov. 20 n56
Weather-proof shopping center ..... Aug. 21 *46
Morrisville, Pa.
Fairless Works builds a waterworks ..... July 10 *40
Levittown, Pa. a city from scratch A. J. Fox Jr. ..... Dec. 4 *34
Fairless Works industrial wastes story (diagram) ..... July 17 *44
Fairless Works yields new construction ideas ..... Aug. 28 *31
Levittown sewage works with activated sludge treatment A. J. Fox Jr. ..... Dec. 4 *54
New York City
Air conditioned office building to get eyebrows ..... July 10 *99
Coliseum for Columbus Circle. Oct. 30 n45
Coliseum planned for Columbus Circle ..... Dec. 11 *48
Elementary school's long-span roof supported by precast girders ..... Aug. 28 *42
Power plant's coal towers and conveyors 160
Ritz Carlton Hotel replaced by office building—deep basement wall shored by old steel ..... Aug. 14 *45
Smith Houses Section II open. Nov. 27 *44
United Nations General Assembly building ..... Oct. 9 *26
New York State
Westchester gets ninth large firm in new offices-to-suburbs trend. Dec. 25 *46
Newark, Ohio
Forging plant award ..... Aug. 14 123
Pit seven stories deep and covering more than an acre of ground for Air Force's forging presses. Dec. 25 *66
North Grafton, Mass.
Wyman-Gordon Co. installing heavy presses ..... Nov. 27 *21
North Miami, Fla.
Industrial plant financing vetoed by Supreme Court ..... Aug. 14 52
Oxnard, Calif.
Housing project has gunited walls J. B. Jessup ..... Nov. 6 *43
Paoli, Pa.
Development center for display and testing of Certain-teed Products ..... Nov. 20 *41
Philadelphia
Pennsylvania Railroad plans new buildings at Broad Street Station ..... Nov. 6 48
Side-hill swimming pool puts service in substructure ..... Sept. 25 *43
Phoenix, Ariz.
Parking snarls fought with two new garages ..... Oct. 16 *46
Raleigh, N. C.
Arena's steel catenary roof to be carried by oblique concrete arches ..... Oct. 2 *33
Westinghouse meter plant ..... Dec. 11 n*105
Rockdale, Texas
Aluminum Co. starts up another new plant ..... Dec. 4 n*28
Rome, Ga.
General Electric plant approved for fast tax amortization ..... Sept. 18 *72
Russia
Skyscraper at Moscow ..... Dec. 18 n69
St. Clair, Mich.
Iron and coke project planned. Aug. 28 75
St. Louis, Mo.
Defense Military Personnel Records Center planned ..... Nov. 27 *72

* Illustrated; e, editorials; n, news

Medical office building arouses controversy ..... Nov. 13 57
San Diego, Calif.
Portable classrooms ..... Oct. 2 *55
San Francisco
Clay pipe air system prevents ground freezing in cold-storage building ..... Oct. 23 *63
Garage floor supported by prestressed girders ..... Nov. 13 *38
Underground garage bid Aug. 14 123 Oct. 16 *48
San Mateo, Calif.
Macy plans shopping center.. Aug. 7 *35
Springfield, Mo.
Lily-Tulip Cup Corp. plant has tunnels for service lines..... Dec. 25 *30
Syracuse, N. Y.
University to construct new engineering building ..... Oct. 16 38
Tacoma, Wash.
Precast plant built in earthquake region ..... July 24 *34
Tennessee
Paper mill will transform region ..... July 17 *49
Paper plant making rapid progress ..... Dec. 25 48
Toronto, Can.
Ford builds plant in suburb.. Oct. 9 *51
Venezuela
Carcas builds a "Rockefeller Center" ..... July 10 *66
Veterans Administration hospital program nears end ..... Aug. 28 77
Veterans Administration hospitals for 1953 cut out of appropriation bill ..... July 3 105
Virginia
U. S. Navy building a communications system of three units. Nov. 27 26
York, Pa.
Caterpillar builds big plant. Dec. 11 n*107
Buildings see also Garages, Housing, Public Works

C

Cables and cableways—Aerial tramway serves Kemano tunnels on Aluminum Co. project ..... Nov. 20 *42

Caissons

Concrete pillow caissons for Thruway Bridge, N. Y. (unit prices) Nov. 20 102
Floating caissons Louis Balog.. Sept. 11 6
New York City
Pier 57's floating box towed to final site ..... Aug. 7 *26 e132
Pier 57's floating boxes ready for trip ..... July 31 *36
Pier 57's girders are being cast ..... Oct. 30 *27
Sand Island type of caissons support river-front power plant for Cincinnati Gas & Electric C. E. Burtch ..... Nov. 27 *33

Canals

Central and Southern Florida Flood Control canal gates raised by jeep power ..... Sept. 25 *46
Contra Costa Canal—Dam solves repair problem ..... Nov. 27 *35
Delaware Canal to be improved Nov. 20 n25
Donzere-Mondragon canal
Lock at Bollene has lift of 86 ft ..... Aug. 14 *61
Lined with vacuum concrete revetment Sept. 25 *53 correction I. Leviant ..... Dec. 25 12
Emergency dam to close off new canal lock at Morgantown, W. Va. .Nov. 15 n*26
Locks
Delaware & Raritan Canal, N. J. lock control (unit prices) Dec. 18 105
New Orleans drainage canal loads tested ..... Nov. 6 *45
New York State Barge Canal closed for repairs ..... July 31 27
Russia completes Volga-Don Canal ..... Aug. 7 *71
Texas irrigation canals dug by novel ditcher ..... Sept. 25 *44

Cement

Asbestos-cement products go up. Oct. 30 n73
Israel to export cement..... Sept. 4 208
Italian cement factories..... Sept. 4 210
Producers eager for price controls to end ..... Dec. 25 64
Spokane cement plant to be in continuous operation ..... Sept. 11 69
Centennial of Engineering celebration ..... Sept. 18 *19

Channels

Analog circuit solves open channel problem K. O. Vartia..... Dec. 4 *44
Army approves of channel improvements on the Hudson River and the Chesapeake ..... Nov. 20 n25
Missouri River is channeled to rescue St. Joseph ..... Oct. 16 *28
Chemicals—Outlook for chemical expansion ..... Dec. 4 *22
Chimneys—Novel use of Kite Preston Taylor ..... Nov. 13 76

Cities

Arizona's seventh largest city to be built in the desert at copper mine ..... Dec. 11 n25
Dallas' industrial district grows on former flood lands ..... Oct. 23 *47
Dispersal planned as A-bomb defense ..... July 24 *48 e116
Louisville turns down atom plant as area expands fast ..... July 3 *56
Nashville buys 189 acres as industrial site ..... July 17 57
San Francisco redevelopment strides forward ..... July 10 *46
Cities see also Planning
Columns—Tangent-modulus formula for buckling strength of columns approved ..... July 17 72

Concrete

Additive seen as disease preventative ..... July 17 78
Aggregates
Slag aggregate process developed by TVA ..... Sept. 4 199
Chart for direct concrete beams design J. N. Robinson ..... Nov. 6 *45
Concrete prices, Canada ..... July 3 106
Floor slab analysis by photograph ..... Oct. 16 *44 e116
Florida groups want better concrete ..... Aug. 28 78
Fly ash in concrete to be permitted by N. Y. City building code.. Oct. 16 n26
Fly-ash in pavement mixes C. J. Cain ..... Dec. 18 11
Fly-ash in pavement mixes tested by Baltimore highway department W. L. Chilcote ..... Oct. 23 *40 e128
Forms
Concrete waffle formed with plastic pans for machine shop roof, Cleveland, Ohio ..... Oct. 2 *39
Grooned arch roof for Hartford water filters ..... Nov. 27 *36
Slipforms raise Danish brewery silo ..... Oct. 16 *53
Tilt-up forms pare building costs, Florida ..... Nov. 13 *72
Traveling steel forms line Arizona highway tunnel ..... July 24 *36
Heat-resistant concrete for jet-engine test cells Alfred Schwartz... Oct. 2 8
How New York City got better concrete ..... July 3 *101
Intrusion-Prepackt method for placing concrete used for forge support ..... Dec. 11 *46
New York's Concrete Industry Board—self-help gets results..... July 10 e128
Precasting
Long-span roof for New York City elementary school supported by precast girders ..... Aug. 28 *42
Tacoma, Wash., plant built in earthquake region ..... July 24 *34
Prefabricated reinforced concrete panels tested to pare barrack costs ..... Oct. 30 41
Prestressed
Beams, partly prestressed, cost less F. W. Abeles..... Oct. 30 *32 e96
Designer-contractor firms advance prestressed concrete abroad. Dec. 11 *56
Fatigue machine tests concrete. Oct. 9 *76
London Airport hanger roofs supported on 150 ft prestressed beams ..... Nov. 13 *61
New prestressed concrete ideas discussed at Western conference ..... Dec. 4 n76
New York City—Pier 57 deck prestressed stringers mass produced ..... Aug. 14 *33
Ohio highway bridge..... Oct. 16 *35
Prestressed concrete beams gain ground P. F. Blair Jr.... Nov. 27 12
San Francisco garage floor supported by prestressed girders.... Nov. 13 *38
Which prestressing method has lowest cost? Massachusetts analyzes bids for bridge beams (tables) ..... July 3 *103 July 10 e128
Reinforcing
Reinforced concrete logs seal Detroit Dam outlet tunnel..... Aug. 7 *53
Rod bender works fast..... Dec. 11 *64
Unreinforced concrete pavement being laid west of Clinton, New Jersey ..... Sept. 25 *38
Welded reinforcement goes up first in system used in Great Britain ..... Aug. 7 *68
Resilient concrete floor..... Sept. 4 190
Surfacing for roads..... Dec. 4 e144
Test case filed for patent of casting concrete ..... Dec. 4 n122
Tilt-up wall warehouse, East Hartford, Conn. ..... Oct. 16 *37
Vacuum concrete revetments used to line French canal..... Sept. 25 *53

Construction

Advertising signs ..... July 31 *77
Alternate designs H. M. Hadley Nov. 20 14
Backlog of construction work.. Dec. 25 *63
Canadian construction expenditures for this year ..... Sept. 25 62
Appropriation bills signed by Truman ..... July 17 23
Committee raps military construction ..... Oct. 9 23
Rushes bills toward completion ..... July 3 21
Votes money for construction. July 10 *21
Connecticut auditors rap construction policies ..... Oct. 9 136
Construction industry customers (table) ..... Sept. 18 68
Construction money to remain "tight" ..... Oct. 9 135
Costs
Can construction costs be forecast? ..... Sept. 4 *98
Construction and building cost indexes 1913-1952 (chart)..Sept. 4 *80
ENR cost indexes (tables) ..Sept. 4 89
ENR cost indexes in 21 cities (charts) ..... Sept. 4 *80
Increase in 1952 ..... Dec. 11 *105
1951-52 annual report..... Sept. 4 *79—164
Decline in construction is less than seasonal ..... Dec. 11 n27
Defense building sets record (charts) ..... July 17 *128
Election shakes up outlook for federal construction Sam Justice... Nov. 31 *25
Election—What the election means to construction ..... Dec. 30 *21
ENR backlog of engineering construction up since Korea (table) Sept. 18 *70
Estimated new construction activity 1952-53 (table) ..... Dec. 4 21
Fairless Works yields construction ideas ..... Aug. 28 *31
Federal expenditures for construction in continental United States 1942-1953 (table) ..... Oct. 30 23
Forecast for construction 1952, 53, 54, 55, 1960 (table) ..... Oct. 9 21
German construction: American view ..... Sept. 25 *58
How the construction business goes ... Alaska R. H. Dodds..... Dec. 11 *32
Industrial building boom helps construction cash flow to Ohio. Sept. 25 *86
Joint Committee on the Economic Report sees high rate of building through 1960 ..... Dec. 25 21
Louisiana to vote on industrial plan ..... Oct. 9 135
Military construction to be supervised by F. R. Creedon..... Sept. 4 *364
Motel boom means construction dollars ..... Aug. 7 *106
NPA clarifies construction outlook ..... Aug. 28 76
NPA eases construction controls Dec. 11 n24
Navy building to hit new peak. Sept. 4 *74
New construction markets opening ..... Sept. 25 n*21
New construction policy takes shape in Washington ..... Nov. 27 19
New England blueprints industrial growth ..... Oct. 9 137
New people, same problems..... Nov. 13 e172
Overspending gage sought..... Sept. 11 *23
Peace, war needs spur chemicals expansion ..... Sept. 4 *363
Pension funds seen as source for building ..... July 17 127
Riley House Committee chides military services on construction. Oct. 23 26
Russia spurs construction ..... Sept. 18 *49
Stabilizing construction..... Dec. 18 e128
Steel channeled to defense throttles construction starts ..... Aug. 7 *23
Steel price hike sends construction costs up ..... Aug. 7 100
Technology must be honest ..... Sept. 18 e96
Vermont plans aid for industrial building ..... July 24 90
Voters approve $1.2 billion to spur new construction ..... Nov. 13 *21
What the customers want..... Nov. 20 e136
Work injury rates in construction 1949-1950 (table) ..... Sept. 4 125

Construction Equipment

Concrete mixers
Truck mixers tested by the University of Maryland..... July 31 57
Truck mixers to be studied..Sept. 4 190
Conveyors
Belt conveyors double capacity of ore-handling pier at Baltimore ..... Oct. 2 *26
Coal tower and conveyors for New York power plant..... Sept. 4 160
Get more out of belt conveyors Fred Matheis Aug. 21 *40 correction ..... Sept. 18 14
Cost indexes (tables) ..... Sept. 4 135
Ditcher digs Rio Grande Valley, Tex. irrigation canals ..... Sept. 25 *44
Dredges—Indonesia receives hydraulic pipeline dredge ..... Aug. 14 68
Drill rig to drill holes in Fort Randall Dam's chalk formation..... Sept. 4 *77

* Illustrated; e, editorials; n, news

Earth-moving machines move to clear up earthquake damage to Southern Pacific ..... Sept. 4 *73
Equipment makers caught in price squeeze (charts) ..... Oct. 23 *100
Jacks—Horizontal mud-jacking re-supports tank bottom ..... July 17 *83
Machinery shipment 1951 and 8X months of 1952 (table) ..... Sept. 18 69
Paving speed bowl at Milford, Mich. by hanging paver and roller from side ..... July 10 *42
Rental rates (tables) ..... Sept. 4 139
Rivets—how much combined stress can a rivet take? Higgins & Munse ..... Dec. 4 *40
Rod bender works fast ..... Dec. 11 *84
Supply in better balance ..... Nov. 13 144
Turkey gets funds for road machinery ..... Oct. 23 61
Used machinery price orders revised ..... July 10 95
Vibrating soil compactor studied at Navy's research center, Calif. July 31 *57

Construction Materials

Asphalt—Colored surfaces K. N. Cundall ..... Dec. 11
How to apply color to bituminous surfaces ..... Oct. 21 41
DPA material allocations show shift in copper ..... July 24 87
Fly ash in concrete to be permitted by N. Y. City building code ..... Oct. 16 n28
Fly ash in pavement mixes C. J. Crain ..... Dec. 18 11
Fly-ash in pavement mixes tested by Baltimore W. L. Chilcote ..... Oct. 23 *40 e128
Labrador's railroad construction supply is brought by every form of transport R. H. Dodds ..... Sept. 4 *38
Lightweight fireproofing for I (steel) framing ..... Nov. 6 *34
Materials and labor prices July 10 81 Aug. 7 93 Sept. 4 357 Oct. 9 105 Nov. 6 97 Dec. 4 105
Mortar troubles traced to gypsum plasters ..... Aug. 7 61
NPA allots materials to 162 new projects ..... Aug. 14 23
Plaster finish failures studied ..... Oct. 9 85
Porcelain-enameled steel wall panel with core of insulating material to be developed ..... Aug. 7 62
Prices
Price indexes (tables) ..... Sept. 4 109
Prices of materials outside the U. S. (tables) ..... Sept. 4 112
To go up ..... Aug. 7 105
Tropical building materials discussed by Building Research Advisory Board F. S. Merritt ..... Nov. 27 57
Construction Materials see also Aluminum, Cement, Concrete, Steel, etc.

Contractors

Alternate designs favored T. F. Gibson ..... Sept. 11 6
American Construction Co. wins first round in claim case ..... Oct. 16 88
Another oldest A. H. Coon ..... July 17 6
Bridge contractor acquitted in Roanoke River, N. C., collapse ..... Nov. 27 72
Comptroller warns contractors: beware U. S. overcommitments ..... Sept. 4 72
Contractor turnover spotlighted by ENR ..... Oct. 30 n69
Contractors in the middle ..... Oct. 2 e112
Design by the contractor R. B. Macfarlane ..... July 31 10
Dun & Bradstreet study shows why contractors go bankrupt ..... Sept. 25 *84
Engineers and contractors L. A. Warner ..... Oct. 16 10
Expediter loses suit to collect $10,000 fee ..... Dec. 11 n108
Ferguson Co. fined for overpayments ..... July 10 27 Sept 11 23
Fuller, George A. Co.—history of the firm ..... Oct. 30 *49
Hot Springs Airport, Ark. contractor wins judgment ..... July 24 26
Licensing racket alleged in Florida ..... Sept. 25 23
Licensing scandal in Miami ..... Oct. 16 n
Massachusetts hammers out system for construction of public buildings Oct 30 24 ..... Nov 6 24
Ohio licensing board resigns in protest ..... Sept. 25 n85
Old contracting firms H. L. Blakeslee ..... Oct. 30 11
Old firm P. S. Munk Pedersen ..... July 10 14
Old firms S.D.C. Chutter ..... Aug. 14 15
Older firm Robert Crimmi ..... July 10 14
Opposes contractor designs F. O. Koch ..... July 31 10
Phoenix, Ariz. building firms charged with making overpayment ..... Oct. 2 27
Right of review by the court Alan Johnstone ..... July 31 10
Wage control violations on Hoffman Heights homes draw big tax penalty ..... Dec. 4 32
Wage control violators who inform will not get any special consideration ..... Dec. 4 32
Wages not to be increased by contractors until approved by CISC ..... Dec. 25 29
Whittenberg Construction Co. fined for hiring system ..... Dec. 25 29
Zanesville, Ohio, airport contractor sues the government for erroneous specifications ..... July 10 *103

Contracts

Bids
ACG-NECA set up bid-shopping group ..... Oct. 30 n23
Competitive design bid Arthur Monsey Jr. ..... Oct. 16 14
Contractors prepare for fight over bid shopping legislation ..... Dec. 25 24
Electrical contractors and general contractors split on bid shopping ..... Nov. 20 n27
Massachusetts hammers out system for construction of public buildings ..... Oct. 30 24 Nov. 6 24
Rift widens over bid shopping ..... Oct. 16 21
Contract awards now 14% ahead of 1951 ..... Oct. 9 134
ENR contracts July 3-102 July 10-100, 104 July 17-129 July 24-88 July 31-78 Aug. 7-101,105
Aug. 14-125 Aug. 21-93 Aug. 28-78 Sept. 4-362-365
Sept. 11-71 Sept. 18-69 Sept. 25-89 Oct. 2-87 Oct. 9-134, 137 Oct. 16-90 Oct. 23-104 Oct. 30-75 Nov. 6-129, 122 Nov. 13-150 Nov. 20-109 Nov. 27-74
Dec. 4-117, 121 Dec. 11-109 Dec. 18-102 Dec. 25-65
Los Angeles county building contract creates dissension ..... Dec. 25 n64
1952 contracts headed for all-time record ..... Sept. 4 362
Controlled Materials Plan—Steel tickets to remain valid into 1953 ..... July 31 21
Copper
Restrictions to be relaxed ..... July 31 21
Construction progressing ..... Aug. 14 *23
San Manuel Copper Corp. receives RFC loan ..... July 24 89
Culverts
Alabama culvert under high fill is research laboratory ..... Nov. 20 *38
Portland, Ore. designs new culvert and reduces costs ..... July 17 *46

D

Dams

Albeni Falls Dam
Sandpoint, Idaho, seeks injunction ..... July 3 *24
Australia
Eildon Dam work slowed by economy move ..... July 17 *80
Boyson Dam
Facts and figures on the dam. Sept. 18 *32
Bull Shoals Dam
A pair of power giants for the Ozarks ..... July 10 *25
Canada
Waneta Dam—monolith toppling plan dropped ..... Aug. 14 25
Canyon Ferry Dam, Mont.
Third stage diversion ..... Oct. 30 *42
Conemaugh Dam, Pa.
Flood control dam nearly finished ..... Oct. 30 n*28
Contra Costa Canal, Calif.
Coffer dam solves repair problem ..... Nov. 27 *35
Dalles Dam
Bids opened for gates, tailrace and approach channel ..... Oct. 16 n90
Bridge settled ..... July 31 27
Spillway bids to be opened in October ..... Aug. 28 40
Technical engineers' union pickets the dam ..... Dec. 18 32
Davis Dam
Dedication of dam ..... Dec 11 *28 e132
List of major articles on the dam ..... Dec. 11 28
Detroit Dam, Ore.
Sealing diversion tunnel with concrete logs ..... Aug. 7 *53
Egypt
Owen Falls Dam takes shape ..... July 3 *72
Folsom Dam
Builders plan sideline—gold ..... July 24 88
Concrete pouring speeded ..... Dec. 4 *39
Fort Randall Dam, S. D.
Closing the dam hydraulically ..... Aug. 14 *37
Construction races to reduce future Missouri River flood threats. Nov. 6 *27
Spillway walls anchored to chalk ..... Sept. 4 *77
Transmission line (unit prices) ..... Sept. 4 169
Gavins Point Dam, S. D.
Bids to be opened ..... Dec. 18 102
Missouri River eased back into original channel ..... Sept. 25 *27
Haiti
Peligre Dam part of the Artibonite project ..... Nov. 27 55
Hungry Horse Dam, Mont.
Dedication of dam ..... Oct. 2 24
Power increase due to dam (chart) ..... Oct. 2 *24
India
Indus River use to be discussed by India and Pakistan engineers ..... July 3 *66
Kerr Dam, Va.
First Roanoke River flood dam dedicated ..... Oct. 9 *28
Liberty Dam
Fly-ash specified for concrete mix W. L. Chilcote ..... Oct. 23 40e128
McNary Dam, Ore.
Fishways (unit prices) ..... Aug. 28 80
Mexico
Alvaro Obregon Dam project starts ..... Dec. 4 n60
Mocuzari Dam contract awarded ..... Oct. 30 n46
Prince Aleman Dam—building an earthfill dam in the tropics. Oct. 9 *34
Morgantown, W. Va.
Aluminum used for main girder of emergency dam ..... Nov. 13 n*26
Muskingdum River Dam, Ohio
Completed in 58 days ..... Nov. 13 n*144
Wooden dam to be rebuilt ..... July 3 *42
Norfork Dam, Ark.
A pair of power giants for the Ozarks ..... July 10 *25
Oahe Dam, S. D.
Congress battle seen over dam. Nov. 20 24
Oroville Dam, Calif.
Exploration work contract let. Aug. 28 75
Palisades Dam, Idaho
Dam, powerplant and roads (unit prices) ..... Sept. 4 *167
Pelton Dam
River proves key to power case ..... July 31 26
Pine Flat Dam
Bidding catches engineers by surprise ..... July 3 23
Irrigation offer rejected by Bureau of Reclamation ..... July 3 23
St. Anthony Falls, Minneapolis
Lower dam on the Mississippi makes progress ..... Dec. 11 *54
Switzerland
Second dam to be higher than Hoover ..... Oct. 9 55
Table Rock Dam, Mo.
Ground broken ..... Oct. 16 n25
Tiber Dam, Mont.
Bids invited ..... July 31 27
Earth-fill dam bids offered ..... Aug. 28 78
Tobique Narrows Dam, Canada
New Brunswick dam completed ..... Nov. 20 65
Turkey
Adana Plain development ..... Sept. 25 62
Tuttle Creek Dam, Kan.
Bids opened as fight goes on. Sept. 25 n23
Dam started ..... Oct 16 n25
Worcester, Mass.
Earth-fill dam (unit prices) ..... Aug. 21 94
Yale Dam
Earthfill in wet weather ..... Aug. 7 *49
Decentralization—see plant dispersion

Defense

Alaska defense construction is pushed ..... July 31 *25
Civil Defense preparation is better than you think ..... Sept 18 e96
Dispersal planned as A-bomb defense ..... July 24 *48 e116
Construction boom to continue. Sept. 18 68
Defense Military Personnel Records Center planned ..... Nov. 27 *73

Defense Production Administration

Approves tax benefits ..... Sept. 4 77
Certificates of Necessity issued. July 24 88
Defense construction plans reshuffled Vincent Smith ..... Nov. 6 *21
Defense housing program ..... Sept. 11 *68
Distribution of total reported cost by construction and equipment (table) ..... July 31 76
Facilities Review Board cuts back expansions ..... July 24 87
Lists textile plants to get tax aid ..... July 31 27
Okays $81 million in expansion write-offs ..... Aug. 21 91
Spurs post-attack plans ..... Aug. 14 *71
Tax aid granted to 101 new projects ..... Oct. 30 n71

Dredges and dredging
Illinois dredging (unit prices) .. Sept. 4 189
Portable dredge pays off O. P. Erickson ..... Dec. 11 11

Drills and drilling—Test drilling, West Virginia (unit prices) ..... Sept. 4 173

E

Earthfill—Yale Dam, Wash. earthfill placed in wet weather ..... Aug. 7 *49
Earthquake Safety Advisory Board is reactivated ..... July 31 58

* Illustrated; e, editorials; n, news

Earthquakes

Bakersfield, Calif. damaged by earthquake ..... Sept. 11 *25
Bakersfield, Calif. earthquake damages old sewage plant ..... Oct. 9 *36
California earthquake ..... July 24 26
California quake left no new lessons ..... July 31 *26
Southern California earthquake takes toll ..... Aug. 28 23
Where we stand on seismic and blast design ..... July 10 *30
Electrical transmission
Fort Randall Dam, S. D. transmission line to Iowa (unit prices) ..... Sept. 4 169
Kootenay Lake, B. C. power crossing ..... Nov. 20 n66
Electronic manufacturing capacity ..... Aug. 14 121
Elevators
Mesabi platforms key to new automatic parking method ..... Oct. 2 *40
Vertical street in Oregon City to be repaired ..... Oct. 30 n45

Engineering

Centennial of Engineering celebration ..... Sept. 18 *19
Centennial of Engineering underway in Chicago ..... Aug. 7 45

Engineers

Building courses available W. H. Gumpertz ..... Nov. 6 13
Construction colleges urged to fill gap ..... July 10 32
Consulting engineer new business in 1951 (table) ..... Oct. 30 71
Consulting engineers business in 1951 ..... Nov. 13 150
Damage suit hits Miami engineering firm ..... Oct. 2 23
Dearth of highway engineers ..... Oct. 16 e116
Definition of a "professional engineer" ..... Dec. 18 32
The educator's problem ..... Oct. 16 e116
Engineering education ..... July 17 e152
Fellowships for foreign engineers ..... Sept. 4 210
Florida engineer faces hearing ..... July 24 26
Florida licensing board hears evidence against Miami consulting engineers ..... Aug. 28 *22
Florida State Board revokes engineer's license ..... Nov. 13 n28
Handbook engineering ..... Aug. 28 e104
Interchange of engineering talent works for the good of the free world ..... Aug. 14 *60
Minnesota engineers request higher salaries ..... Dec. 18 62
More emphasis on practical experience proposed for teachers by examiners ..... Dec. 25 43
Question of age William Flesher ..... Nov. 20 14
Registration
Canadian engineers study uniform registration ..... Nov. 27 46
Salary Stabilization Board defines professional engineer and architect ..... Aug. 7 25
Sanitary engineer training A. F. Meyer Jr. ..... Sept. 11 10
Short cut to maturity K. L. Treiber ..... Nov. 6 13
Shortage of engineers M. W. Strauss ..... July 31 fo
Shortage of engineers seen by manpower group ..... Sept. 11 45
What training for sanitary engineers? American Society for Engineering Education meeting ..... July 24 *40 e116
Who qualifies as an engineer? Aug. 21 e116
Why so few engineers? M. L. Spoke Aug. 14, 12; F. S. McKee Sept. 18, 11; W. S. Jett Jr. ..... Oct. 16 16
Yale's 100 years of engineering ..... Nov. 20 *72
Escalators—New York City installing high-speed public escalators at subway station 42nd Street and Lex. Ave. ..... Dec. 11 n52
European Sanitary Engineers Seminar held in London ..... Dec. 4 n56
Expropriation guarantees made with foreign countries ..... July 17 82

F

Federal Housing Administration Greene sworn in, as head ..... July 17 *28
Federation of Sewage & Industrial Wastes Associations Group urges to kick off shackles of tradition A. J. Fox Jr. ..... Oct. 16 *27
Fireproofing for steel framing ..... Nov. 6 *34
Fishways—McNary Dam fishways (unit prices) ..... Aug. 28 80

Floods and Flood Protection

Conemaugh Dam, Pa. will restrain floods ..... Oct. 30 n*28
Congress urges limitation of Agriculture Dept. responsibility in flood control program ..... Dec. 18 21
Construction to surge along the Missouri ..... Aug. 7 *102
Dallas' industrial district grows on former flood lands ..... Oct. 23 *47
Everglades, Fla. floods to be controlled by levees, channels and storage areas (map) ..... Oct. 2 *34
Flood insurance plan backed by Administration ..... July 17 46
Fort Randall Dam construction races to reduce future Missouri River flood threats ..... Nov. 6 *27
Grand River flooding cut by controlled discharges, Col. E. G. Herb ..... Aug. 28 *36
Italy—Po flood control ..... Dec. 18 69
Missouri Basin development program cost climbs ..... Oct. 16 n27
Missouri flood damage ..... Sept. 25 n67
Missouri River project attacked by House subcommittee ..... July 24 25
Ohio River gets a strait-jacket (map) ..... July 31 *32
Sacramento Valley flood control job expects more funds ..... Oct. 26 n89

Floors and Flooring

Prestressed girders support San Francisco garage floor ..... Nov. 13 *38
Research shows importance of nailing ..... July 17 75
Resilient concrete floor ..... Sept 4 190
Florida's plan to encourage new industry is blocked ..... Aug. 21 89
Forest Products Research Society convention ..... July 10 69
Forge support proves tough, Huntington, W. Va. ..... Dec. 11 *46

Foundations

Air Force's heavy press program holds promise for construction ..... Nov. 27 *21
Alaska—how the construction business goes, R. H. Dodds ..... Dec. 11 *32
Clay pipe air system prevents ground freezing in cold-storage building ..... Oct. 23 *63
Fairless Works yields new construction ideas ..... Aug. 28 *31
Floating box for New York City's Pier 57 towed to final site ..... Aug. 7 *28 e132
Floating boxes for New York City's Pier 57 foundations ..... July 31 *36
Forge support proves tough, Huntington, W. Va. ..... Dec. 11 *46
Greenland-Thule air base construction on permafrost, V. B. Smith ..... Oct. 2 *21
Labrador railroad pushes north to iron range, R. H. Dodds ..... Sept. 11 *38
Lily-Tulip Cup Corp. plant has tunnels for service lines ..... Dec. 25 *30
Mexico City's clay subsoil is slowly sinking ..... Aug. 21 *51
New York City—deep basement wall shored by old steel as office building replaces the Ritz ..... Aug. 14 *45
New York Thruway bridge foundations will be floating boxes of reinforced concrete similar to Pier 57 ..... Nov. 13 n27
Philadelphia's 80-year-old sewer again collapses ..... Aug. 21 *48
Piling for sulphur plant foundations in the Gulf of Mexico ..... Nov. 20 *25
Pit seven stories deep and covering more than an acre of ground for Air Force's forging presses at Newark, Ohio ..... Dec. 25 *66
Sand Island type of caissons support riverfront power plant for Cincinnati Gas & Electric, C. E. Burtch ..... Nov. 27 *33
Texas tank bottom re-supported by horizontal mud-jacking ..... July 17 *83

G

Garages

Hartford store offers to build garage on city-owned property ..... Nov. 20 47
Los Angeles to have six-story pigeonhole parking unit ..... Sept. 11 80
Mexican parking garage ..... Oct. 9 *55
Phoenix, Ariz. fights parking snarls with two new garages ..... Oct. 16 *46
Pittsburgh Parking Authority has two new garages ..... Nov. 20 *47
San Francisco approves bid for underground garages ..... Oct. 16 *48
San Francisco receives underground garage bids ..... Sept. 11 123
San Francisco to have parking garage with 1250 stalls ..... Nov. 6 48
Garages see also Street Traffic—Parking

Garbage and Refuse Disposal

Bay Shore, N. Y. produces compost garbage ..... Nov. 6 *40
Compost factory, Frank Lambert ..... Nov. 27 15
Costs of refuse disposal (tables) Sept. 4 152
Hempstead, L. I., incinerator has the new look ..... Aug. 21 *44
In defense of sewers ..... Nov. 27 e96
Jasper, Ind. likes garbage grinders ..... Nov. 6 48
New York City starts second of seven new incinerators ..... July 10 59
Oakland, Calif. expands composting operation ..... Oct. 16 n37
Omaha, Neb. tosses garbage in Missouri River ..... Sept. 25 n28
Omaha, Neb. to stop dumping garbage in river, process it instead ..... Oct. 16 n27
RX for refuse ..... Aug. 21 e116
Santa Monica, Calif. incinerator financed by lease-option ..... July 17 *58
Waste disposers to replace garbage collection in Shorewood Hills, Wis. ..... Dec. 18 63
Gates—Central and Southern Florida Flood-control canal gates raised by jeep power ..... Sept. 25 *46

Girders

Aluminum used for main girder of emergency dam at Morgantown ..... Nov. 13 n*26
Flatbed trucks haul girder sections to new use ..... July 3 *46
Heaviest prestressed concrete girders in U. S. constructed [illegible] San Francisco [illegible] floors ..... Nov. 13 *38

Grade Crossings

Massapequa, Long Is. grade crossing elimination (unit prices) ..... Dec. 11 100
Williamston, N. C. suit involving underpass ..... Aug. 7 104
Guatemalan Roads Assn. formed ..... Dec. 18 n69
Gunite—Oxnard, Calif. housing project has gunited walls, J. B. Jessup ..... Nov. 6 *43
Gyroscopes speed road surveys ..... Sept. 11 *67

H

Heating and ventilating—Designing a well-heated warehouse, Fort Wayne, Ind. ..... Oct. 23 *45

Highway Administration

Maryland's highway administration should be changed ..... Dec. 4 25
N. J. Highway Authority appointed ..... July 31 58
Pennsylvania's "little Hoover Commission" commends highway agency ..... Dec. 25 n26
West Virginia commissioner appointed ..... July 17 *30

Highway Construction

Bolivia-Cochabamba-Santa Cruz highway grading work far advanced ..... Oct. 2 *28
Chart for field engineering and inspection of Oklahoma Turnpike, July 17 40
Concrete surfacing for roads ..... Dec. 4 e144
Fly-ash in pavement mixes tested by Baltimore highway department, W. L. Chilcote ..... Oct. 23 *40 e128
Garden State Parkway—Authority created to finish parkway (map) ..... Sept. 18 *28
Indiana looks to future on its roads ..... Dec. 18 *35
New Jersey laying unreinforced concrete pavement west of Clinton ..... Sept. 25 *38
Oklahoma Turnpike hits the home stretch ..... July 17 *38
Waste sulphite liquor used as road "binder", Ore. ..... July 10 42

Highway Design

Idaho test road closed for winter months ..... Dec. 18 *43
Idaho test tracks begun ..... July 3 *36
Illinois site picked by AASHO for big pavement test ..... Aug. 21 *26
Load limits
Maryland test road to be resurfaced ..... July 3 24
Newark, N. J. airport builds test tracks ..... July 3 *34
Road test information needed ..... Nov. 6 e144
Rubber surfacing tried on Michigan Ave. Bridge, Ohio ..... Aug. 21 25
Traffic rise on N. J. Turnpike steps up expansion planning ..... Nov. 13 *40

Highway Economics

AASHO discusses more adequate highway financing, J. R. Carr ..... Dec. 18 *23
AASHO requests Congress to increase federal aid ..... Dec. 18 n23
California adopts record budget ..... Oct. 30 n75
Federal aid for roads, H. K. Evans ..... Oct. 9 14
Gasoline taxes
American Trucking Assn. favors higher taxes ..... Oct. 16 n28

* Illustrated; e, editorials; n, news

States want an increased amount of gasoline tax revenues and the right to disburse it ..... Dec. 18 28
Weight-mile-tax costs R. H. Baldock ..... Dec. 18 12
What taxes for roads? ..... Nov. 6 e144
Highway plans spurt in some states, moneys, legal snags in others ..... Oct. 23 *102
Maryland program for $568-million road construction urged by Roads Commission (map) ..... Nov. 20 n*27
Maryland, Virginia and the District of Columbia to push program to relieve traffic congestion ..... Dec. 25 n28
More road money for states ..... July 31 e104
North Carolina road-building contest is cost race ..... July 24 24
Oklahoma road bond issue rejected by Governor ..... Aug. 14 124 Sept. 11 72
Price index (chart & tables) ..... Sept. 4 107
Toll highway policies changed ..... Aug. 7 *28
Toll road assuming more importance in the highway system of the U. S. Farley Gannett (table) ..... Dec. 25 41
Highway marking—"talking pavements" ..... Aug. 7 e132

Highway Research

Idaho test road closed for winter months ..... Dec. 18 *43
Idaho test track inaugurated by WASHO ..... July 3 *36
Illinois site picked by AASHO for big pavement test ..... Aug. 21 *26
Iowa to try driverless trucks ..... July 3 *39
Newark, N. J. airport test tracks helps highway design ..... July 3 *34

Highway safety

Indiana believes in third lane for trucks on ascending grades ..... Dec. 18 n27
Minimum speeds. J. D. Franklin ..... July 10 11

Highways

African road development being pushed ..... Oct. 16 53
Airline Highway, La. speeded (map) ..... Sept. 25 *26
Argentine express highways proposed ..... July 17 82
Arkansas highway (unit prices) ..... Sept. 4 177
Atlanta expressway approval ..... July 17 63
Austin, Tex. Expressway opened in part ..... Aug. 14 *55
Baltimore beltway plans revealed ..... Dec. 25 47
Better roads movement going ..... Sept. 11 e96
Bolivia-Cochabamba-Santa Cruz highway—correction ..... July 17 82
Bolivia-Cochabamba-Santa Cruz highway grading work far advanced ..... Oct. 2 28
Boulder Canyon, Colo. highway (unit prices) ..... Dec. 18 105
California road plan offered ..... Nov. 27 n25
Canada—Ontario builds highways to overcome bottlenecks ..... Sept. 4 205
Cartersville, Ga.—Tennessee toll highway, plans shelved ..... July 3 27
Chile modernizing the southernmost part of the Pan American highway ..... Sept. 4 210
Cleveland freeways make progress ..... Aug. *47
Connecticut highway relocation (unit prices) ..... Sept. 4 173
Dallas-Forth Worth to San Antonio highway planned ..... Dec. 18 n22
Delaware Highway Dept. wins by-pass fight ..... Sept. 11 25
Detroit expressway passes one-third mark ..... Oct. 30 *44
Dover by-pass, Del. (unit prices) ..... Sept. 4 175
Ethiopian roads built by J. L. Hubbard ..... Sept. 4 193
European network fund sought ..... Sept. 4 202
Florida toll highways recommended ..... Aug. 7 29
Florida toll highway system, Jacksonville to Miami and to St. Petersburg opposed (map) ..... Aug. 21 *24
Fog should not close highways. Nov. 34 e96
Garden State Parkway Authority created to finish parkway (map) ..... Sept. 18 *28
General Motors contest seeks road muddle solution ..... Nov. 20 28
Georgia highway resurfacing and widening (unit prices) ..... Aug. 28 80
Guatemala buying highway construction machinery ..... Sept. 4 210
Guatemala City-San Jose road to be completed ..... Nov. 27 47
Guatemala considering foreign contractors for highway work. Aug. 21 56
Hanover-New Salem, N. D. highway (unit prices) ..... Sept. 4 175
Houston opens 50-mile Gulf Freeway ..... Aug. 7 *39
Idaho highway (unit prices) ..... Sept. 4 171
Idaho test tracks begun July 3. *36 closed for winter months ..... Dec. 18 *43
Indiana looks to future of its roads ..... Dec. 18 *35
Indiana toll road clears another hurdle ..... Nov. 27 n25
Italy plans road to cut accidents ..... Nov. 27 46
Jacksonville-Miami turnpike studied ..... Sept. 18 26
Japan studies 325-mile freeway. Sept. 4 *216
Kansas highway (unit prices) ..... Sept. 4 177
Kansas highway relocation (unit prices) ..... July 31 79
Kingston-Plaistow, N. H. highway (unit prices) ..... Sept. 4 179
Long Island parkway system planning ..... Oct. 9 e160
Louisville Expressway changes forced by traffic ..... Sept. 25 67
Maine bituminous highway (unit prices) ..... Dec. 18 105
Maine Turnpike—Action expected before year's end ..... Dec. 11 n25
Maryland expressway (unit prices) ..... Sept. 4 179
Maryland program for $568-million road construction urged by Roads Commission (map) ..... Nov. 20 n*27
Maryland, Virginia and the District of Columbia to push program to relieve traffic congestion ..... Dec. n28
Mexican rural road program ..... July 10 64
Mexico-Guadalajara-Nogales highway to be opened soon ..... Oct. 9 55
Michigan State Highway project (unit prices) ..... July 3 106
Milwaukee expressway system planned (map) ..... Dec. 4 *47
Milwaukee hopes to have five expressways ..... July 31 35
Minnesota highway (unit prices) ..... Sept. 4 177
Moffat Tunnel not to have highway for motor traffic ..... Aug. 7 29
Nebraska highway grading (unit prices) ..... Sept. 4 175
Newark, N. J. State Route 21 section to be built as double-deck highway ..... July 3 24
New England Thruway Plan for turnpike (map) ..... Aug. 7 *29
New Hampshire highway (unit prices) ..... Nov. 20 102
New Hampshire plans two toll highways (map) ..... Aug. 21 *24
New Jersey Turnpike Revenue climbs ..... Aug. 7 29
Takes steps to reduce fog accidents ..... Nov. 27 n26
Traffic rise steps up expansion planning (map) ..... Nov. 13 *49
Niagara parkway plan ..... Dec. 4 27
North Carolina road-building contest is cost race ..... July 24 24
North Carolina Turnpike Turnpike Authority plans a new one ..... Sept. 18 26
Ohio faces financing problems for roads ..... Sept. 18 72
Ohio relocates State Route 18 (unit prices) ..... Aug. 14 126
Ohio Turnpike
Asphalt vs concrete hearing Dec. 18 n*22
Awards made ..... Oct. 23 28
Bridge project delayed by a railroad-turnpike commission disagreement ..... Dec. 18 n22
Expressway to link with Turnpike ..... Nov. 15 n26
Financing problems Aug. 7, 27, Sept. 18 72
First award to be made for bridge ..... Sept. 18 73
Legality cleared ..... July 17 25
Ohio plans new turnpike ..... Nov. 6 *23
Paving costs challenged at hearings ..... Dec. 4 25
Staff heads appointed ..... Aug. 21 *60
Suit to open bidding to asphalt interests ..... Nov. 27 24
Oklahoma Turnpike
Turner Turnpike hits the 'home stretch' ..... July 17 *38
Turner Turnpike secures steel for bridges ..... Sept. 18 26
Pakistan roads to receive technical assistance ..... Aug. 14 68
Pan American Highway
Guatemala opens another section ..... Nov. 6 68
Guatemala opens a paved section ..... Oct. 30 n46
Guatemala to seek help to finish its section of highway ..... Oct. 2 30
Pennsylvania Turnpike
Delaware River Extension—ground broken ..... Nov. 27 24
Portsmouth, Ohio, atomic energy plant transportation pushed ..... Nov. 27 n*25
Providence Expressway
Westbound lanes to open ..... Oct. 30 n45
Rome-Brindisi highway considered ..... July 10 64
San Antonio Expressway progresses ..... Oct. 23 *53
San Francisco Bayshore Freeway
Makes progress with steel structure ..... Nov. 20 *50
South Dakota highway (unit prices) ..... Oct. 2 83
Toledo Expressway
Plan completion ..... Dec. 4 n119
Toll highways
Changes in policies aired ..... Aug. 7 *28
Toll roads. J. R. Steelman Aug. 7, 16; ..... Aug. e104
Toll roads
Toll road assuming more importance in the highway system of the U. S. Farley Gannett (table) ..... Dec. 25 41
Tolls should be cut. Charles Mayer ..... Nov. 13 *14
Tri-State Expressway—second section opened ..... Dec. 18 *35
Utah highway relocation (unit prices) ..... Sept. 4 *171
Vancouver Freeway
Project is taking form ..... Nov. 20 *48
Venezuela—Caracas-La Guaira highway to cost $7 million a mile. Nov. 6 *60
Vermont highway grading and paving (unit prices) ..... Sept. 4 171
Virginia highway (unit prices) ..... Sept. 4 173
Washington State highway (unit prices) ..... July 24 92
West Virginia Turnpike
Commission dodges legal fight ..... Sept. 25 n28
Contracts coming fast ..... Dec. 11 n108
Controversy as work starts. Sept. 18 26
Five types of drilling (unit prices) ..... July 17 132
Ground breaking—asphalt or concrete? ..... Aug. 28 27
Judge upholds Turnpike ..... Nov. 20 n26
No appeal slated in case ..... Nov. 27 n12
Highways see also Pavements

Housing

Airport hysteria ..... July 17 e152
Atomic Energy Commission's plant in Ohio to have temporary housing ..... Sept. 18 69
Barracks
Alaska-Anchorage barracks. Nov. 20 *28
Fort Knox construction booms ..... July 17 *26
Boy Scout camp construction helped by engineering ..... July 31 *46
Buffalo housing projects cut labor costs with 'tilt-up' wood frame walls ..... Nov. 27 *30
Builders step up defense housing pace (chart) ..... July 3 *105
Bureau of Labor Statistics devices formula to index housing starts ..... Aug. 21 87
Canada starting mass production of homes on the "Levitt" system. Aug. 7 71
Chester, Pa. cost schedule ..... Sept. 4 *140
Chicago's major redevelopment program ..... Dec. 25 *22
Cities plan $10 billion to rebuild blighted areas ..... Dec. 25 *22
Cleveland's redevelopment plan okayed ..... Sept. 25 n68
Colombia-Bogota housing ..... July 3 69
Compulsory home warranties urged after probe of GI and FHA housing ..... Dec. 11 n27
Costs of public housing in New York City (chart & tables) ..... Sept. 4 151
Credit relaxation may help home building ..... Sept. 18 27
Dallas, Tex. offers air conditioned houses ..... Aug. 14 *121
Defense housing program ..... Aug. *68
Demonstration houses show new building ideas ..... July 3 84
Detroit launches GI home loan inquiry ..... Sept. 11 24
Ecuador replacing housing in the earthquake area ..... July 17 82
European Authority studies housing for coal-steel workers ..... Nov. 27 46
Fairless Steel workers community—Levittown, Pa. A. J. Fox Jr. ..... Dec. 4 *34
Federal National Mortgage Assn. to bolster housing ..... Aug. 28 75
GI housing supervision is forecast ..... Sept. 4 24
Greenbelt, Md. sold by the Public Housing Administration ..... Oct. 23 39
Guam now has Federal Housing Administration office ..... Sept. 4 205
Hawaii housing rushed for the Navy ..... Aug. 7 100
Home builders hit GI loan snags ..... Oct. 30 70
Home building outlook in various cities ..... Aug. 14 22
Home market seen in public tenants ..... Nov. 20 109
Housing construction activity in 1953—Bureau of Labor Statistics. Oct. 30 n26
Korean veterans get home loan guarantee ..... Dec. 18 102
Lifting of Regulation X gives hope to home builders ..... Sept. 25 n22
Loan official sentenced for irregularities in VA financing homes ..... Dec. 4 n120
Los Angeles city departments fight for slum-clearance job ..... Aug. 14 254
Los Angeles City Housing Authority battles with the City Council Majority July 3, 24; Aug. 14, 25; Aug. 21 27
Los Angeles housing feud erupts into damage suit ..... July 17 23
Los Angeles passes laws to organize slum-clearance ..... Dec. 11 n55
Miami builders offer saving to public housing agency ..... Oct. 9 70
Milwaukee housing bonds face market trouble ..... Dec. 18 104
Minneapolis area plans weather-proof shopping center ..... Aug. 21 *46

* Illustrated; e, editorials; n, news

Minnesota's taconite ore fields bring the modern mining town....Oct. 23 *34
Montgomery, Ala. slum clearance project .....Aug. 7 *36
Mortgage buying decreases by insurance companies .....Aug. 21 87
Mortgage trading market stirs action .....Nov. 27 n71
Movable houses pass test—estimated cost .....July 31 *24
Nashville, Tenn. slum clearance approved .....Oct. 16 49
NAHO convention session. Abner Layne .....Oct. 23 *25
NPA molds new construction rules .....Sept. 18 27
New York City
Forced to cut low-rent program .....July 17 63
Smith Houses Section II open..Nov. 27 *44
Norfolk, Va. plans to lose its worst slums .....July 3 *60
North Chicago, Ill. housing project uses sandwich walls .....Aug. 14 *26
North Greenhills, Ohio, Cincinnati Community Development housing project proposed .....Nov. 6 54
Oregon court upholds redevelopment .....Sept. 11 48
Ottawa, Ont. housing program launched .....Sept. 18 52
Oxnard, Calif. housing project as gunited walls J. B. Jessup....Nov. 6 *43
Phoenix housing boom.....Nov. 6 56
Portland, Ore.
Blighted area redevelopment may come despite bond defeat..Dec. 11 n52
Housing authority serves eviction notices in temporary units ..Nov. 6 56
Land deal marks start of program of slum clearance and redevelopment .....Sept. 25 *65
Prefabs from Great Britain taxed by Australia .....Aug. 21 54
Public Housing Administration to market $170 million in bonds .....Sept. 4 362
Public housing bond costs worry PHA .....Oct. 2 87
Puerto Rican housing plans ..Sept. 4 223
Realtors optimistic on housing outlook .....Nov. 13 n27
Regulation X is foundering....Aug. 14 21
Rhode Island Supreme Court upholds redevelopment .....Sept. 11 48
Riverside, Calif. housing project killed by court action .....Dec. 25 n49
St. Louis moves ahead on slum clearance .....Sept. 11 *46
St. Paul speeds slum clearance project near state capitol .....July 17 *67
San Antonio builds modular engineered houses as research project...Nov. 20 78
San Francisco's Diamond Heights redevelopment receives funds..Aug. 21 27
San Francisco redevelopment strides forward .....July 10 *46
San Francisco's 608-unit housing project approved by federal government .....Oct. 16 50
Scheduling work to control housing costs .....Sept. 4 *140
South shows 9-month housing boom (chart) .....Sept. 4 *76
Tighter selling market .....Oct. 9 138
Timber roof truss tested for small houses .....Sept. 4 190
Veterans Administration imposes moratorium in the Washington city area .....Sept. 18 27
Veterans Administration in San Diego, Calif. persuades builder to replace defective Soc houses .....Sept. 4 249
Veterans Administration-San Diego builders indicted for bribery..July 24 24
Veterans' housing Washington, D. C., investigation July 10, 23.....July 24 25

Hydraulics

Analog circuit solves open channel problem. K. O. Vartia .....Dec. 4 *44
Pipeline network analyzer installed in Midwest .....July 10 41
Sediments on sleuths board new boat .....Nov. 20 *77
Standards Bureau evolves answer to plumbing stack design problem .....Oct. 30 *48

Hydro-electric Power

Alaska
Alaska-Eklutna in USBR's first project in Alaska R. C. Felkner .....Sept. 11 *35
Eklutna project—comptroller warns contractors: beware U. S. comments .....Sept. 4 72
Australian engineer here to discuss hydro works .....Aug. 21 56
Australia's Snowy Mountains project seeks bidders .....Nov. 13 64
Boysen Dam facts and figures Sept. 18 *32
Bulgaria starts hydro projects Nov. 13 64
Bull Shoals Dam and Norfolk Dam, Ark. a pair of power giants for the Ozarks .....July 10 *25
California election issue is development of water and hydro power....Aug. 21 90
Canada
Aluminum Co.'s construction at Kemano tunnels served by aerial tramway .....Nov. 20 *42
Aluminum Co. erecting the world's largest underground power plant, L. L. Wise .....Nov. 13 *31
Aluminum Co. of Canada building an underground power house..Sept. 4 208
Aluminum Co. of Canada opening new plant on the Peribonka River .....Sept. 4 *213
Aluminum hydro project set up in the wilderness, L. L. Wise..Sept. 25 *32
Quebec plans $100-million program (map) .....Nov. 29 *62
Waneta Dam power project...Aug. 14 25
Cincinnati Gas & Electric Co.'s Walter C. Beckjord Station supported on caissons. C. E. Burtch.....Nov. 27 *33
Columbia River Basin streamflow forecasting .....Nov. 13 *81
Congo, Africa, river diversion planned .....Oct. 23 61
Cost indexes for irrigation and hydropower construction (chart & table) .....Sept. 4 103
East Kentucky Cooperative upheld in right to construct power plant .....July 3 27
Feather River project contracts let for preliminary work .....Aug. 28 75
Feather River project report cause of controversy .....July 24 *66
France
Donzere-Mondragon power canal, France lined with vacuum concrete revetment .....Sept. 25 *53
Donzere-Mondragon project—Blondel plant dedicated .....Nov. 20 *62
Hungry Horse Dam—Power increase due to dam (chart) .....Oct. 2 *24
Kerr Dam, Va. power plant.....Oct. 9 *28
Mexico building plant at Tingambato .....Sept. 18 51
Mexico opens Obregon hydro project .....Dec. 4 n60
Niagara River, Canada—Sir Adam Beck station to be done 3 years early .....Aug. 21 52
Niagara Falls, Ont. tunnel for Sir Adam Beck plant holed through .....Oct. 16 n*24
NSPE opposes extension of public power .....July 25 26
Ohio River basin development program under consideration .....Aug. 21 90
Pacific Northwest power projects can be developed through sale of revenue bonds .....Dec. 25 66
Pacific Northwest's power need hastens Yale Dam earthfill placing in wet weather .....Aug. 7 *49
Palisades Dam, powerplant and roads (unit prices) .....Sept. 4 *167
Passamaquoddy power not wanted by Canadians .....Sept. 4 164
Passamaquoddy tidal project to be reviewed again .....July 3 27
Pelton Dam power case.....July 31 26
Philippine Republic invites U. S. contractors to bid on Agno River project .....Nov. 6 68
Phillipines—Akbuklao hydro project's diversion tunnels receives on bid .....Aug. 7 72
Portugal pushes hydro electric projects .....Oct. 23 61
Projects on 1952 planning list...Aug. 14 26
Roanoke Rapids case considered by the Supreme Court .....Nov. 6 28
St. Lawrence power project—
FPC hearing shows favorable outlook (map) .....*Dec. 18 *24
FPC ok's N. Y. application to build U. S. part .....Dec. 11 n25
International Joint Commission completes hearings .....Oct. 23 24
St. Lawrence pact scrapped by Canada .....Nov. 13 n27
St. Lawrence power sought..July 10 *24
TVA goals set by chief engineer July 24 *57
Turkey pushes hydro development (map) .....Dec. 25 *50
Turkey to receive loan for development of the Adana Plain .....Aug. 14 68
U. S. Bureau of Reclamation plans charted .....Aug. 7 24

I

India—Technical cooperation aids 12 million .....July 3 66
Insurance—Base rates on compensation insurance for construction, Jan. 1, 1953 (table) .....Sept. 4 133
International Commission on Large Dams Meeting of Executive Committee .....Oct. 2 61
Investments in European countries to be guaranteed .....Aug. 7 72
Iron
Five steel companies push taconite plans. J. R. Carr.....Dec. 11 *40
St. Clair, Mich. iron and coke project planned .....Aug. 28 75

Irrigation

All-American Canal suit.....Sept. 4 364
Bids invited on eight irrigation projects .....July 31 27
Canyon Ferry Dam now in third stage diversion .....Oct. 30 *42
Central Arizona project may be financed by state .....Aug. 7 42
Colombia and Venezuela are starting their first large-scale public irrigation developments .....Nov. 27 *55
Cost indexes for irrigation and hydropower construction (chart & table) .....Sept. 4 103
Eden Project, Wyoming (unit prices) .....Sept. 4 189
India to be aided by technical cooperation .....July 3 66
Israel to reclaim the Negev Desert .....Sept. 4 223
Jordan considering irrigation scheme for the River Yarmuk .....Sept. 4 208
Mindoka project bids invited..July 31 27
Missouri Basin development program cost climbs .....Oct. 16 n27
Missouri River Valley compact approved by state representatives .....Dec. 11 *26
Peru pushes major river diversion .....Oct. 30 n46
Rio Grande Valley, Tex. irrigation canals built by novel ditcher..Sept. 25 *44
Shafter-Wasco Irrigation District drops Bureau of Reclamation plan because of cost .....Nov. 6 n28
U. S. Committee on Irrigation formed at meeting of International Commission .....Oct. 2 62
West wants more state control on reclamation projects .....Dec. 18 n28

J

Jetties—New York City cornerstone and capstone jetty unit prices....Oct. 23 99

K

Korea

Engineers tackle tough assignment supporting stabilized iron ....Nov. 27 *23
Prefabricated bunkers used by the Marines .....Aug. 21 27

L

Labor

AEC Oak Ridge plant resumes after shut-down .....Oct. 23 n31
AFL bans use of pickets in jurisdictional disputes. Joe Gambatese .....July 24 *21 e116
AFL building trades forge policies .....Sept. 18 *25
AFL convention decodes seaway stand .....Oct. 2 27
AFL Executive Council takes two actions involving the construction industry .....Aug. 21 29
AFL leaders are cooperative at meeting with Sen. Taft to discuss changes in law .....Dec. 25 n29
AFL outlines policy in construction .....Sept. 25 n31
AFL plumbers' leaders take key posts .....Dec. 4 n21
Arizona passes Fair Labor Practice Act .....Nov. 13 n29
Arkansas carpenters back as contractors raise pay .....Sept. 4 356
Baltimore open-shop builders charge pay scale is unconstitutional..Oct. 23 n31
Bricklayer apprenticeship encouraged by labor-contractor groups. Oct. 16 n32
Bricklayers convention re-elects Bates as head .....Nov. 6 *31
Bricklayers' union constitution changed .....Nov. 13 n30
British Columbia strikes settled .....Sept. 18 48
Building trades wages rates in cities (tables) .....Sept. 4 119
California law decides no money for strike-idle despite later discharge .....Oct. 2 27
California projects snarled in strikes .....July 3, 49; July 17 34

* Illustrated; e, editorials; n, news

Canadian contractors shut down jobs retaliating for carpenters' strike Aug. 7 33
Carpenters' union fined for closed shop violation Sept. 18 46
Charlestown, Ind. powder plant plagued by jurisdictional disputes July 3 51
Christmas bonus allowed Dec. 18 32
Chicago contractor groups and unions indicted by Grand Jury for anti-trust violation July 10 27
Chicago plastering contractors and unions hit by suits Aug. 14 28
CISC blueprints autonomy plant Dec. 24 n29
CISC brands two strikes as purposeless July 17 33
Cincinnati court dispute brings two winners Aug. 21 30
Citizens committee fights A-plant strikes Oct. 23 n32
Cleveland has jurisdictional dispute Oct. 9 31
Cleveland overpay probe Sept. 4 356
Closed shop upheld in unusual case Nov. 27 28
Compensation laws show liberal trend July 3 52
Construction industry's plan for deciding jurisdictional disputes wins court test Aug. 14 *27
Construction Industry Stabilization Commission seeks full autonomy Dec. 18 *31
Construction Industry Stabilization Council faces new rules Aug. 7 *30
Construction wages outside the U. S. (tables) Sept. 4 111
Contractors in Maryland fight minimum wage pacts Sept. 11 44
Detroit strikes to receive no compensation Aug. 28 29
Differences committee Aug. 21 30
Discharged Austin guard claims unfair practice Oct. 16 n32
Discrimination charged to firms at Anchorage, Alaska Nov. 13 n29
Dover, Del. Air Force Base workers strike Oct. 23 n31
Dunlop board ruling upset by NLRB decision July 24 *27
Martin P. Durkin appointed Sec. of Labor Dec. 11 n29
Encouraging union joining gets firm NLRB fine Nov. 13 n29
Escalator clauses in California's aircraft industry Nov. 27 28
Evendale, Ohio, jet engine plant shut down by union dispute Oct. 30 n29
Fairless Works, Morrisville, Pa., I-day strike halted Aug. 14 27
Florida contractors accused of paying excess wages July 24 32
Former union head sues AFL for damages Nov. 6, 97; Dec. 4 n32
General Electric's Buechel, Ky. strike settled Nov. 20, 32; Nov. 27 28
General Electric's plant at Lockland, Ohio, held up by strike Nov. 13 n30
IBEW wins key election at Savannah River project Aug. 7 29
Industry members of CISC await WSB case action Dec. 11 n29
International Assn. of Machinists proposal Aug. 21 29
Jurisdictional strikes Aug. 7 30
Kentucky local union law confused by two actions July 17 33
Kiewit and unions agree, ban jurisdictional fights Nov. 6 n32
Letterkenny Depot, Chambersburg, Pa., work stoppage Oct. 9 32
Lincoln building trades strike settled Sept. 4 356
Louisville operating engineers fight local chapter law July 3 49
Louisville steel erector's strike Aug. 21 30
Materials and labor prices, July 10, 81; Aug. 7, 93; Sept. 4, 357; Oct. 9, 105; Nov. 6, 97; Dec. 4 105
McGraw fights WSB ruling July 10 28
George Meany heads AFL, Joe Gainbatese Dec. 4 *29
Military deferment Aug. 7 33
Military manpower gets shorter but apprentice program continues Aug. 14 *28
Milwaukee unions guilty of interference Oct. 2 27
Missouri inter-union disputes bring on lawsuits July 17 32
Montgomery, Ala. and Ledbetter case heard by the Supreme Court, Nov. 20, *31; Nov. 27, 28; Decision Dec. 11 n29
NLRB allows union as agent, circumvents Taft-Hartley injunction July 24 31
NLRB dismisses charges against 50 California contractors Nov. 27 28
NLRB orders two elections in new industry trend Oct. 30 n29
New federal mediator is on trial Oct. 16 *31
N. Y. Bricklayers to receive pension pay July 31 *28
New York City bricklayer strike July 17 31
New York City contractors pay big sums to welfare funds Nov. 27 27
New York City mason builders agree July 24 31
New York State—Westchester county charges unions in unlawful conspiracy Dec. 18 32
Ohio promised bricklayers Aug. 14 28
Paducah, Ky., labor troubles continue Dec. 11 30
Paducah, Ky. no-strike pact signed Aug. 28 *26
Paducah, Ky. operating engineer rebels sue union July 24 32
Philadelphia carpenter strike ended Aug. 7 33
Philadelphia's 119 day strike ended Aug. 28 29
Philadelphia strike brings violence July 24 31
Philadelphia Trades Council demand ignored by operators Aug. 21 30
Phoenix trades council in labor law test case Dec. 18 31
Plasterers and masons form state conference Nov. 20 n32
Pre-glazing ban upheld by NLRB July 17 34
The problem of human relations Sept. 25 e112
Right-to-work law passes in Nevada Nov. 13 n29
Right-to-work law under high court review Oct. 23 n31
St. Louis labor practices may bring on probe Oct. 9 31
Salary Stabilization Board defines professional engineer and architect Aug. 7 p25
Sandhogs lawsuit settled Sept. 25 n31
Savannah River H-plant strike averted Nov. 20 31
Savannah River hydrogen bomb plant to vote on union Dec. 25 29
Savannah River Project—hiring practices scored July 31 *22
Seattle bricklayers reject pay increase July 17 31
Speed-up proposed for NLRB rulings Sept. 11 43
Strike for same-union subcontractors does not violate Taft-Hartley Dec. 4 32
Taft-Hartley law under fire in Supreme Court test July 3 52
Taft maps labor law changes Nov. 27 27
Technical engineers' union pockets the Dalles Dam job Dec. 18 32
Tullahoma, Tenn. air center strike ended by contractors' agreement Oct. 23 n32
Underwood, defiant union head fined and ousted Nov. 6 32
Union in contempt of Kentucky court Dec. 18 32
Union initiation fees in Louvisville, Ky. Sept. 18 47
Union labor trends (table) Sept. 4 126
Union-shops agreement void without non-Red affidavit July 10 28
Union shop can be revoked by election Oct. 30 29
Union troubles are Dunlop's business, Joseph Gambatese Sept. 18 *42
Union welfare fund at Pittsburgh Nov. 6 n32
Unions to demand productivity wage Oct. 9 32
United Construction Workers in W. Va. coal fields lose court fight to NLRB Nov. 20 *32
USAF study shows labor efficient Oct. 23 n32
Wage control changes announced Dec. 18 31
Wage control violations on Hoffman Heights homes draw big tax penalty Dec. 4 32
Wage control violators who inform will not get any special consideration Dec. 4 32
Wage differential paid to contractor by Army Engineers Oct. 23 n31
Wage hikes, boost construction costs July 10 105
Wage increase for operating engineers granted by arbitration Nov. 13 n30
Wage increases in three months July 31 31
Wage indexes (tables) Sept. 4 117
Wage rate confusion hits N. Y. contractors July 10 *26
Wage Stabilization Board—Ferguson fined for overpayments Sept. 11 23
Wage overpayment charges against Miami firm dismissed Nov. 6 n32
Wages not to be increased by contractors until approved by CISC Dec. 25 29
Wages—rise of 15-cent an hour may be allowed Sept. 18 46
Washington, D. C. apartment building owned by AFL Electrical Workers July 24 32
Welfare fund payments begun in Pittsburgh area Sept. 25 n28
West Canada construction locked in tie-up Aug. 28 29
Whittenberg Construction Co. fined for hiring system Dec. 25 29

Lakes

Great Lakes level damage caused by rainfall, not less outflow July 3 *26
Great Lakes levels—whose responsibility? Sept. 25 e112
Lake Superior—gates reclosed Aug. 14 26
Lake Superior waters damage shore property Aug. 7 25
Latin America—U. S. capital is flowing Sept. 4 220
Legal decisions
Notes on legal decisions, I. V. Werbin July 17, 84; Sept. 4, 226; Oct. 9, 105; Oct. 23, 66; Oct. 30, 56; Nov. 13, 68; Dec. 4, 78; Dec. 25 54

Levees

Everglades, Fla. floods to be controlled by levees, channels and storage areas (map) Oct. 2 *34
Ohio River gets a strait-jacket (map) July 31 *32
Tennessee levee (unit prices) Sept. 4 183

Lights and Lighting

Clear glass vs. glass block, O. F. Wenzley, H. E. Kentopp Nov. 20 10
East Orange, N. J. hexagonal classrooms in elementary school Aug. 7 *46
Fresh look at three lighting problems, H. L. Logan (charts) July 3 *40
Tomorrow's lighting is here today, F. R. Graham Oct. 30 *37
Louisiana's industrial building boom July 17 *130

M

Metals

Allocations still tight (table) Dec. 25 n28
Outlook grows brighter Sept. 25 n28
Microfilming plans filed with Miami Beach Building Department Sept. 11 47

Mines

Amphibious sulphur mining plant Oct. 9 *25
Arizona's seventh largest city to be built in the desert at copper mine Dec. 11 n25
Five steel companies push taconite plans, J. R. Carr Dec. 11 *40
Headframe for mine rolls and skids 67 ft. into place Dec. 11 *45
Taconite calls for large-scale construction Dec. 18 *39
Taconite mine fields in Minnesota bring the modern mining town Oct. 23 *34
Mississippi goes industrial as 1936 seed bears fruit Aug. 21 *88

Models

Faith in model analysis, Gerald Bowen Oct. 9 14
New business: slab analysis by photograph Oct. 16 *44 e116
Monorail rapid transit studied in Los Angeles Nov. 6 n56
Motel boom means construction dollars Aug. 7 *106

Moving

Flatbed trucks haul girder sections to new use July 3 *46
Four houses are moved by barge down the Mississippi Dec. 4 n*48
Headframe for mine rolls and skids 67 ft. into place Dec. 11 *45
Movable houses pass test—estimated cost July 31 *24
New York City's Pier 57 foundation box towed to final site Aug. 7 *26 e132
Water tower moves on ball bearings on steel trucks Oct. 16 54

Municipal problems see Cities, Planning

N

National Assn. of Housing Officials Convention session, Abner Layne, Oct. 23 *25
National Constructors Assn. exchange information Nov. 6 *117

National Production Authority

Allots materials to 152 new projects Aug. 14 23
Clarifies construction outlook Aug. 28 77
Construction controls eased Dec. 11 n24
Construction Industry Advisory Committee wins concessions Nov. 6 n21
Prolongs controls on construction Aug. 28 23
National Reclamation Assn. meeting Nov. 20 n113

* Illustrated; e, editorials; n, news

National Science Foundation announces fellowship opportunities ... Nov. 13 81
Nicaragua plans for economic development ... Oct. 30 n46

O

Office of Price Stabilization
Ceiling on steel fabricators ... July 17 22
Used machinery price order revised ... July 10 99
Oil refinery
Florence, Ariz., oil refinery construction assured ... Sept. 18 71
Wales has big refinery ... Sept. 4 202

P

Painting—How to apply color to bituminous surfaces ... Oct. 24 41
Pan-American Highway Congress plans permanent staff ... Dec. 4 n59
Pantographs give tunnel cross-section ... Nov. 27 *40
Parking see Street Traffic—Parking

Pavements

Airports
Harlingen Air Force Base, Tex., (unit prices) ... Aug. 21 94
Newark, N. J., airport test tracks ... July 3 *34
Ponca City, Okla., runway paving (unit prices) ... Sept. 25 88
General Motors speed bowl paved by hanging rolls and paver from cables ... July 10 *42
Idaho test road closed for winter months ... Dec. 18 *43
Idaho test tracks begun ... July 3 *36
Illinois site picked by AASHO for big pavement test ... Aug. 21 *26
Pension funds seen as source for building ... July 17 127
Petroleum-Petrochemical plants in the future ... Dec. 4 *23

Piles and Pile Driving

Atlantic City tank piling (unit prices) ... Sept. 4 181
Chart simplifies sheetpile design ... Nov. 20 *86
Fairless Works gives grounding protection to underground pipes, pipes ... Aug. 28 *35
Freeport Sulphur plant foundations on piles ... Nov. 6 *25
Protectors keep pile tips from splitting ... Oct. 23 *63

Pipes and Pipe Lines

Alabama culvert under high fill is research laboratory ... Nov. 20 *38
Algonquin lacks OK to use new pipeline ... Dec. 4 27
Canada—Saskatoon oil pipeline completed ... Nov. 27 47
Chicago reports on pipe corrosion study ... Oct. 9 82
Clay pipe air system prevents ground freezing in cold-storage building ... Oct. 23 *63
Construction of gas and oil pipelines in the future ... Dec. 4 *23
Easy ways you can strain-test sulfur-compound pipe jointing ... Oct. 16 *38
Fairless Works gives grounding protection to underground piles, pipes ... Aug. 28 *35
Germany—laying eight pipelines simultaneously in one hour in bed of river ... Nov. 6 67
Harrisburg, Pa. renovating utility lines ... Oct. 2 56
Los Angeles is building pipe to deliver Colorado River water to reservoirs ... July 17 63
Middleton, Ohio, sewer-laying job saves money and adds safety with steel trench sheeting ... Aug. 14 *43
New York State regulates natural gas pipeliners ... Dec. 11 106
Obnoxious odor fills valley, traced to gas pipeline test ... Dec. 4 n49
Petroleum Administration for Defense spurs $395 million in pipelines ... Dec. 11 n106
Pipe-jacking limits, Jacob Feld ... Dec. 25 12
Pipeline network analyzer installed in Midwest ... July 10 41
Saginaw, Mich. waterworks distribution (unit prices) ... Oct. 16 87
Water main lowered to river bottom on threaded rods and pushed under railroad tracks ... Nov. 13 *44

Planning

Charleston, W. Va. fights traffic jam with plan ... July 24 *51
Chicago's major redevelopment programs ... Dec. 25 *22
Cities plan $10 billion . . . rebuild blighted areas ... Dec. 25 *22
Dallas' industrial district grows on former flood lands ... Oct. 23 *47
District of Columbia Commissioners handed report for long-range public works plan ... Oct. 23 54
Florida's plan to encourage new industry is blocked ... Aug. 21 89
Hamilton, Ont., civic improvements planned ... Aug. 14 68
Long-range planning ... Oct. 9 e160
Minnesota's taconite ore fields bring the modern mining town ... Oct. 23 *34
Mississippi goes industrial as 1936 seed bears fruit ... Aug. 21 *88
Nashville buys 189 acres as industrial site ... July 17 57
New Orleans's suburb planning shopping center ... July 17 *54
Ottawa, Can. work started on remaking city ... Oct. 9 n51
Philadelphia improvements planned to fit city purse ... Nov. 20 33
Portland, Ore. land deal marks start of program of slum clearance and redevelopment ... Sept. 25 *65
Regional Plan Assn. of New York reports on new pattern land for industrial plants ... Aug. 28 *41
San Francisco redevelopment strides forward ... July 10 *46
Shelbyville, Tenn. votes $1 million to attract industry ... Dec. 25 n65
Tennessee paper mill will transform region ... July 17 *49
Tennessee paper plant making rapid progress ... Dec. 25 n49
Venezuela—Caracas builds a "Rockefeller Center" ... July 10 *66
Westchester gets ninth large office in new offices-to suburbs trend Dec. 25 *46
Zone case in Philadelphia ... Nov. 6 48
Plant dispersion ... Oct. 30 e96
Plant dispersion—Planned as A-bomb defense ... July 24 *18 e116
Plant location — Westinghouse seeks places to spend construction money ... Oct. 2 *84
Platforms—moshing platforms key to new automatic packing methods Oct. 2 *40
Plumbing—Standards Bureau evolves answers to plumbing stack design problem ... Oct. 30 *48

Ports and Harbors

Australia plans harbor work ... Oct. 23 50
Guatemala planning two more ports ... Dec. 25 n50
Los Angeles building largest ocean terminal ... Nov. 13 148
Madras, India, harbor work ... Sept. 4 210
Mexico to convert Vera Cruz and Tampico into first class ports Dec. 25 50
New Orleans planning port improvements ... Oct. 9 *60
New York City crime commission asks for study of docks ... Aug. 7 39
New York Port Authority sells $35 million bonds in uneasy market Dec. 18 *100
Portugal port planned ... Nov. 27 47
Puerto Rico—San Juan port work planned ... Aug. 14 67
Savannah State docks opened Nov. 13 *47
South African port north of Durban planned ... Dec. 11 n62
Virginia authority plans port survey ... Dec. 4 n118

Power and Power Plants

AEC signs power pact to supply Portsmouth, Ohio plant (map) ... Oct. 16 22
Brazil receives loan for electric tower program ... Aug. 7 72
Brazilian utilities get large bank credit ... July 3 69
Handy-Whitman index—public utility construction costs (tables) ... Sept. 4 57
TVA goals set by chief engineer July 24 *57
TVA steam power plant costs Sept. 4 *47
Underground construction — Aluminum Co. of Canada building world's largest Underground power house—L. L. Wise ... Sept. 25 *32 Nov. 13 *31
Underground power house in Canada ... Sept. 4 208
West Penn Power, Springdale, Pa. work halted by labor dispute Sept. 25 n28
Power and Power Plants see also Hydro-Electric Power
Prefabricated Home Mfrs. Institute meets ... Nov. 27 n*110
Pressure—Air Force's heavy press program holds promise for construction. Nov. 27 *31

Public Works

Australia borrows externally for development needs ... Aug. 21 54
California continues school financing Aug. 28, 76 ... Sept. 18 71
Chicago's major redevelopment programs ... Dec. 25 *22
Chicago reorganizes the public works department ... Dec. 4 n48
Cities plan $10 billion to rebuild blighted areas ... Dec. 25 *22
Cleveland Council passes redevelopment plan Sept. 11, 73 ... Sept. 18 50
Congressional appropriation bills signed by Truman ... July 17 23
District of Columbia Commissioners handed report for long-range public works plan ... Oct. 23 54
Estimates and costs on public works criticized by congressional group ... Dec. 25 27
Georgia sells bonds to launch school program ... Sept. 17 81
Indiana school building law to be tested ... Sept. 11 72
Maine advances school construction ... Sept. 18 71
Massachusetts hammers out system for construction of public buildings ... Oct. 24 24
Mexico constructs many public works ... Oct. 9 *55
Military construction program looms ... July 17 *26
Navy building to hit new peak Sept. 4 *74
Nicaragua recommends five-year plan for economic development ... Oct. 30 n46
Oregon celebrates half-way mark of Hill-Burton program for hospitals ... Sept. 19 73
Pennsylvania seeks financing for hospitals ... Dec. 4 n118
Philadelphia improvements planned to fit city purse ... Nov. 20 33
Puerto Rico finances improvement program by bond sale ... Sept. 4 208
San Antonio's public works program outlined ... Dec. 18 75
San Diego, Calif. portable classrooms ... Oct. 2 *55
School building boom predicted Sept. 11 69
School financing studies in a number of states ... Dec. 18 n120
School funds earmarked for crowded areas ... July 24 87
School loans ... Nov. 27 n74
School program launched by Virginia ... Dec. 11 n107
School program revived by Congress ... Sept. 11 71
Seattle City Council opposes change in works program ... Aug. 14 58
Veterans Administration hospitals for 1953—cut out of appropriations bill ... July 3 105
Pumps and pumping—Fairless Works builds a waterworks at Morrisville, Pa ... July 10 *40

R

Radio communications—U. S. Navy building a communications system of three units in Virginia ... Nov. 27 26
Rail and water terminals—Los Angeles building largest ocean terminal Nov. 13 148
Railway terminals
Construction pushed to speed traffic, services (chart) ... Nov. 20 *21
Seaboard Air Line RR at Hamlet, N. C. to have freight yard ... Dec. 25 n28

Railways

Australian railroad work coming ... Dec. 11 n62
Belgium—tunnel, viaducts join rail stations in Brussels, G. N. Railbachevskaya ... Oct. 9 *40
Brazil receives loan for railway rehabilitation ... Aug. 7 72
Construction pushed to speed traffic, services (chart) ... Nov. 20 *21
Labrador railroad construction supply is brought by every form of transport, R. H. Dodds ... Sept. 18 *38
Labrador railroad pushes north to iron range, R. H. Dodds ... Sept. 11 *38
Nashville, Tenn. removal of railroad yards ... Dec. 25 24
PRR streamlines tracks, terminals to facilities in Philadelphia area, new Fairless Works (map) ... Dec. 4 *27
Pennsylvania Railroad plans new buildings at Broad Street Station, Philadelphia ... Nov. 6 48
Portsmouth, Ohio, atomic energy plant transportation pushed ... Nov. 27 n*25
Railroad cost index road construction (table) ... Sept. 4 97
Reserve Mining Co. builds heavy-duty track to carry ore from taconite mine, Minnesota ... Dec. 18 *42
Rhodesian railways ... July 3 69
Southern Pacific RR damaged by earthquake; earth-moving machines clearing ... Sept. 4 *73
Rainfall and runoff
Dallas contracts for cloud seeding to increase rains ... Dec. 4 n51

*Illustrated; e, editorials; n, news

New York City haunted by rainmaking ..... July 17 63

Rapid transit—Monorail rapid transit studied in Los Angeles ..... Nov 6 n56

Real estate—Nashville buys 189 acres as industrial site ..... July 17 57

Research

Brazil to have research laboratory planned by U. S. engineer ..... Oct. 9 *52

British Columbia industry offered technical research ..... Dec. 4 n60

Building research advances ..... Oct. 23 e128

Certain-teed Products building links research and display ..... Nov. 20 *41

Lawrence Experiment Station's history and growth to new building ..... Aug. 7 *56

Paper industry searches for cheap evaporation ..... Nov. 6 88

San Antonio builds modular engineered houses as research project ..... Nov. 20 78

Specific gravity of sand and gravel determined faster ..... Nov. 6 *88

A tax on research ..... Dec. 11 e132

U. S. research centers begin in German, Swiss areas ..... Nov. 27 46

University of California sets up new engineering field station ..... July 17 *71

Vanderbilt University establishes research laboratory ..... Nov. 13 82

Reservoirs

Garvey reservoir contract awarded—to serve Southern California ..... Nov. 27 *42

San Diego, Calif. provides parking space on reservoir cover ..... Aug. 7 35

Spain increases the number of reservoirs ..... Sept. 4 222

Retaining walls—Study of retaining walls made ..... Oct. 9 78

Revetments

Donzere-Mondragon power canal, France, lined with vacuum concrete revetment ..... Sept. 25 *53

Vacuum concrete revetment. W. B. Pierson ..... Nov. 27 *12

Rivers

Congo, Africa, river diversion planned ..... Oct. 23 61

Deschutes River, Ore. proves key to Pelton Dam power case ..... July 31 26

India, Pakistan engineers meet to discuss joint use of Indus River waters ..... July 3 *66

Mississippi River—St. Anthony Falls lower dam, Minneapolis, makes progress ..... Dec. 11 *54

Missouri River at Gavins Point eased back into original channel ..... Sept. 25 *27

Missouri River Basin development program cost climbs ..... Oct. 16 n27

Missouri River is channeled to rescue St. Joseph ..... Oct. 16 *28

Missouri River project attacked by House subcommittee ..... July 24 25

Missouri River projects planned. Aug. 7 p102

Missouri River sedimentation sleuths aboard new boat ..... Nov. 20 *77

Missouri River Valley compact approved by state representatives ..... Dec. 11 *26

Ohio River basin development under consideration Aug. 21, 90; P. H. Mason ..... Oct. 30 11

Ohio River traffic ..... July 3 27

Peru pushes major river diversion ..... Oct. 23 n46

Rivers & Harbors Board of Engineers passes half century of service ..... July 10 *72

Rivets—How much combined stress can a rivet take? Higgins & Musso ..... Dec. 4 *10

Roofs and Roofing

Arlington, Va. nation's largest parking building Hecht's shopping center ..... July 10 *34

Can snow loads be reduced? R. R. Britton ..... Sept. 18 13

Concrete shell roofs compared in London symposium ..... Aug. 14 64

Hartford's water filters being built with grained arch roof which is cheaper than flat slabs ..... Nov. 27 *36

Housing and Home Finance Agency recommends more realistic roof loads (maps) ..... July 3 *81

Long-span roof for New York City elementary school supported by precast girders ..... Aug. 28 *42

Plastic-fabric test roof held up by air ..... Aug. 7 *61

Prestressed roof beams span 150 ft in hangar at London Airport ..... Nov. 13 *61

Pumped-into place gypsum roof slab at Lily-Tulip Cup Corp. Springfield plant ..... Dec. 25 *30

Timber roof truss tested for small houses ..... Sept. 4 190

Waffle formed with plastic pans for machine shop roof, Cleveland, Ohio ..... Oct. 2 *39

Waffle roof collapse—diagonal tension blamed. D. B. Cheskin ..... July 3 10

Diagonal tension blamed. D. B. Cheskin ..... July 3 10

Faith in model analysis. Gerald Bowen ..... Oct. 9 14

Shear broke slab? G. S. Pinter ..... July 3 10

Waffle roof failure explained. E. E. Seelye ..... Oct. 23 *10

Wood truss for 1½ story houses tested ..... Oct. 8 *76

Russia—Construction plans rivals the U. S. ..... Sept. 11 *49

S

Safety

Industry told to clean house on safety ..... Oct. 30 30

National Constructors Assn. publishes safety manual ..... July 31 31

Safety on public works ..... July 10 e128

Safety see also Highway Safety

Sanitation

Boy Scout camp construction helped by engineering ..... July 31 *46

Lawrence Experiment Station's history and growth to new building. Aug. 7 *56

United Nations' World Health Organization ..... July 31 *50

What training for sanitary engineers? American Society for Engineering Education meeting ..... July 24 *40 e116

Seawalls see Shore protection

Sewage Treatment

Bakersfield, Calif. earthquake damages old sewage plant ..... Oct. 9 *36

Bloomington treatment for industrial wastes to be tried at Chambersburg, Pa. ..... July 3 *45

Cedar Bluffs, Nebr. sewage system (unit prices) ..... July 17 132

Columbus treatment plant faces severe overloading ..... July 10 *52

Food from sewage byproduct at University of California ..... July 24 39

Great Britain—Maple Lodge Works, Coln Valley, dedicatfon marks completion of system ..... Oct. 2 *52

Harrisburg, Pa. mayor opposes state aid for sewage plants ..... Nov. 13 50

Hawaii speeds up sludge drying with cross ventilation ..... Oct. 23 *63

Hayward, Calif. municipal sewage disposal (unit prices) ..... Oct. 30 68

Hayward, Calif. sewage disposal (unit prices) ..... Nov. 13 138

Levittown, Pa. sewage works with complete activated-sludge treatment A. J. Fox Jr. ..... Dec. 4 *34

Los Angeles Bureau of Public Works report outlines long-range program L. L. Wise ..... Aug. 21 *32

Los Angeles drops plan to build plant to treat San Fernando Valley sewage ..... Nov. 13 50

Los Angeles's Hyperion sewage plant reduces froth on aerators L. L. Wise ..... Aug. 21 *32

Louisville, Ky. and Sewer District fight over payment for treatment plant to reduce pollution ..... Dec. 18 55

Miami to call for bids on sewage plant and sewers ..... Aug. 21 91

Michigan engineer faces charges in sewage disposal plants not completed ..... July 31 27

Nashville, Tenn. studying changes in sewage pump to save $500,000. Aug. 21 48

Newport, Ky. sewerage work (unit prices) ..... Sept. 11 76

Puerto Rico's pollution control discussed at ASCE meeting ..... Nov. 27 56

Raritan River sewer project dispute postponement requested by New Jersey townships ..... Aug. 7 *24

Raritan Valley trunk line—new contracts drawn (map) ..... Dec. 18 *44

Richmond, Va. directed to plan disposal system ..... Dec. 18 60

Sacramento, Calif. receives low bids on sewage job ..... Dec. 3 n52

San Diego, Calif. sewage plant recommended ..... Oct. 9 68

Seattle sewerage squabble ..... Dec. 4 n69

Sewerless toilet—a brand new threat to the privy (tables) Oct. 30, *39; delete data D. E. Bloodgood. Dec. 4 15

Shippensburg, Pa. sewerage (unit prices) ..... Sept. 4 183

Tennessee cities planning new sewerage facilities ..... Dec. 18 56

Sewers

Boston sewage tunnel and shafts (unit prices) ..... Sept. 18 74

L. I. soil starts Southfield Interceptor sewer ..... Dec. 18 60

In defense of sewers ..... Nov. 27 e96

Los Angeles storm drains will go before electorate ..... Aug. 21 90

Middleton, Ohio—steel trench sheeting adds safety, saves money Aug. 14 *43

Milford, Conn., Meadowside main sewer (unit prices) ..... Dec. 25 62

New York City proposal to pass on fitness of contractors would be costly ..... Nov. 6 144

New York City, Queens Borough, faulty sewer construction brings two suspensions ..... Sept. 4 74

Queens sewer inquiry may result in performance bonds for all city work ..... Nov. 20 n54

Queens sewer repair ordered ..... Sept. 18 50

Philadelphia's 80-year-old sewer again collapses ..... Aug. 21 *48

Portland, Ore. sewage pipeline to be laid under the river Aug. 14 *51; correction Lester Long ..... Oct. 9 14

Raritan, N. J. sewer project meets a snag ..... Oct. 16 n26

Raritan River sewer project to be revised ..... July 24

Raritan Valley trunk line—new contracts drawn (map) ..... Dec. 18 *44

Revenue dictates sewer building Oct. 23 101

Salina, Kansas, sewer lines (unit prices) ..... Sept. 18 74

Ships

Le Tourneau Ark to carry farm equipment and missionaries to Africa ..... Aug. 14 *68

Sulphur mining plant on barge. Oct. 9 *25

Shopping Centers

Canada constructing shopping centers in the suburban areas. Nov. 13 62

Minneapolis department store plans weatherproof shopping center Aug. 21 *46

New Orleans suburb planning shopping center ..... July 17 *54

San Mateo, Calif.—Macy plans shopping center ..... Aug. 7 *35

Shopping and commercial center planned near Philadelphia. Nov. 6 n28

Wilmington, Del. suburbs to have giant center ..... Dec. 4 n52

Shore Protection

Breakwater construction at Lakeside, Minn. for Reserve Mining Co. Dec. 18 *40

Chicago shore protection (unit prices) ..... Sept. 4 189

Cleveland seawall to protect the expressways in construction ..... Aug. 14 *47

Cleveland seawall unit is round, firm and full ..... Nov. 6 *47

Great Lakes level damage caused by rainfall, not less outflow ..... July 3 *26

Hawaii fighting battle with ocean for Waikiki Beach ..... Sept. 18 49

Lake Superior waters damage shore property ..... Aug. 7 25

New York City cornestone and capstone jetty (unit prices) ..... Oct. 23 99

Smoke Abatement

Los Angeles to establish layman's committee on smoke problem ..... Nov. 20 n58

New York City sets up department of Air Pollution Control ..... Dec. 4 n45

Seattle to start program of air pollution control ..... Dec. 4 60

Snow—Housing and Home Finance Agency recommends more realistic roof loads (maps) ..... July 3 *81

Soil mechanics

Navy lab develops device for quick soil appraisal ..... Nov. 13 *75

Vibrating soil compactor studied at Navy's research center, Calif. July 31 *57

Specific gravity of sand and gravel determined faster ..... Nov. 6 *88

Specifications

ASTM revising structural steel specifications ..... Nov. 13 n28

Combine drawings, specifications. R. B. Cutler ..... Dec. 4 *82

Spheres—AEC building the world's biggest sphere to house submarine reactor near Schenectady ..... Oct. 23 *29

Stadiums

Dominican stadium ..... Aug. 14 68

Knoxville, Tenn. cuts costs in plans ..... Sept. 18 72

New York City plans a coliseum for Columbus Circle. Oct. 30 n45 Dec. 11 *48

Raleigh, N. C. oblique concrete arches to carry steel catenary roof. Oct. 2 *33

Steel

ASTM revising structural steel specifications ..... Nov. 13 n28

Allotment of steel last half of 1952 and first quarter of 1953 (table) Oct. 9 22

* Illustrated; e, editorials; n, news

Allotments to defense throttle construction starts ..... Aug. 7 *23
DPA revises allotment plan July 24, 28 ..... July 31 21
Export plans a steel plant ..... Dec. 18 n69
Fairless Works starts production at No. 1 Blast Furnace in the Trenton area ..... Dec. 18 *26
McDonnel optimistic on steel as strike-free mills roll ..... Aug. 14 *24
NPA cuts steel quota for CMP violation ..... Sept. 25 n84
New England steel tax certificate expires ..... Aug. 21 90
Ohio River Valley Water Sanitation Commission publishes manual on steel acid waste problem ..... Dec. 25 38
OPS agrees to price increases ..... Aug. 21 92
OPS imposes ceiling on steel fabricators ..... July 17 22
OPS raises prices of reinforcing bars ..... Nov. 6 121
Price hike sends construction costs up ..... Aug. 7 100
Shortage of steel is beginning to bite into construction projects ..... July 17 *21
Shortage of steel slackens (charts) ..... Oct. 23 *21
Wanted a weldable steel ..... July 3 e128
Who gets the steel? (chart) ..... Oct. 23 *23
Youngstown Sheet & Tube expansion means more steel for the Midwest ..... Nov. 13 *147
Stone plants—Belt conveyors for rock crushing plant Fred Matheis Aug. 21, *40, correction ..... Sept. 18 14

Street Traffic

Charleston, W. Va., fights jam with plan ..... July 24 *51
Parking
Arlington, Va., nation's largest parking building—Hecht Co.'s shopping center ..... July 10 *34
Baltimore lending money to build multi-storied garages ..... Sept. 18 50
Chicago to build five garages near the Loop ..... Oct. 16 47
Chicago to use bond issue for garage ..... Sept. 18 50
Columbus, Ohio allowed to construct parking garage ..... July 17 65
Columbus studying parking plans ..... Sept. 18 50
Hartford's municipal garage building delay due to parking lot operators ..... Oct. 16 47
Hartford store offers to build garage on city-owned property ..... Nov. 20 47
Hartford to finance parking ramp ..... Sept. 18 50
Kansas City to finance subsurface parking facility ..... Sept. 18 50
Los Angeles to have six-story underhole parking unit ..... Sept. 11 80
Memphis and Cleveland approve underground garages ..... Oct. 16 48
Memphis to finance underground parking garage ..... Sept. 18 50
Meshing platforms key to new automatic parking method ..... Oct. 2 *40
Mexico constructs parking garages ..... Oct. 9 *55
Philadelphia Parking Authority sued by private garage ..... Nov. 20 47
Philadelphia plans parking garage ..... Sept. 18 50
Phoenix, Ariz. fights traffic with two new garages ..... Oct. 16 *46
Pittsburgh Parking Authority under court fire but has two new garages ..... Nov. 20 *47
St. Paul turns down the Butler parking plan ..... Sept. 11 70
San Diego, Calif. provides parking space on reservoir cover ..... Aug. 7 35
San Francisco approves bid for underground garage ..... Oct. 16 *48
San Francisco receives underground garage bids ..... Aug. 14 123
San Francisco to have parking garage with 1250 stalls ..... Nov. 13 n48
Topeka off-street parking project ..... Sept. 18 50
Tucson to provide off-street parking spaces ..... Sept. 18 50

Structural Design

Buffalo Medical and Dental School design is complex J. N. De Sibour ..... Oct. 16 *41
Column formula approved by research council ..... July 17 72
Design rules need revision ..... Nov. 27 e96
Designer-contractor firms advance prestressed concrete abroad ..... Dec. 11 *56
Formulas preferred L. F. Morrison ..... July 7 6
How to lower prestressing costs for beams P. W. Abeles ..... Oct. 30 *32
New business: slab analysis by photograph ..... Oct. 16 *41 e116
Precast girders support long-span roof for New York City elementary school ..... Aug. 28 *42
Raleigh, N. C. arena's steel catenary roof to be carried by oblique concrete arches ..... Oct. 2 *33
Unfinished structural business G. C. Gireulich ..... Dec. 4 11
Subsidence—Mexico City's clay subsoil is slowly sinking ..... Aug. 21 *51

Subways

Australia — subway for Auckland ..... Nov. 27 47
New York City
Installing high-speed public escalators at subway station 42nd Street and Lex. Ave. ..... Dec. 11 n*52
Second Avenue subway plan delayed ..... Sept. 25 n68
Toronto rapid transit subway pushes toward completion ..... Sept. 11 *51
Sulphur
Amphibious sulphur mining plant ..... Oct. 9 *25
Freeport Sulphur plant building at Garden Bay, La. ..... Nov. 20 *25

Surveys and Surveying

Engineers tackle tough assignment supporting stabilized front in Korea ..... Nov. 27 *23
Gyroscopes speed road surveys Sept. 11 *67
Map costs analysed ..... Sept. 4 24
Photogrammetry saves cities time and money ..... Sept. 4 *236
Perspective drawing device ..... Dec. 11 *64
Range pole holder ..... Dec. 4 *62
Topographic helicopters learn Alaskan terrain in California ..... July 24 *39
Use of two colors in flags helps road survey work C. C. Cole ..... Nov. 20 88
Swimming pools—Side, hill swimming pool, Philadelphia, puts services in substructure ..... Sept. 25 *43

T

Taconite

Calls for large-scale construction ..... Dec. 18 *32
Five steel companies push taconite plans J. R. Carr ..... Dec. 11 *46
Minnesota taconite mine fields bring the modern mining town ..... Oct. 23 *31

Tanks and Standpipes

Atlantic City tank piling (unit prices) ..... Sept. 4 181
Bakersfield, Calif. earthquake damages old sewage plant ..... Oct. 9 *26
Texas tank bottom re-supported by horizontal mud-jacking ..... July 17 *83
Tariffs—Aid or trade? J. A. C. Bowen ..... Oct. 2 14

Taxation

Government's fast tax amortization nears end as goals are approached (chart) ..... Nov. 13 *145
The incentive to build ..... July 31 e104
Louisiana's tax exemption plan brings industrial building boom ..... July 17 *130
Technical Corporation Administration Program planning ..... Aug. 14 68

Television

CBS's $12-million TV studio in Los Angeles ..... Nov. 20 *34
Spokane, Wash. radio tower changed to television station ..... Dec. 11 n*23
TV antenna tower and transmitter (unit prices) ..... Sept. 4 189
Where new television stations will be built (map) ..... Dec. 11 *21
Textiles—Defense Production Administration lists plants it will aid ..... July 24 27
Thomson, T. Kennard dies ..... July 31 e104

Towers

Headframe for mine rolls and skids 67 ft into place ..... Dec. 11 *45
Phoenix, Ariz. airport tower sits on steel tube ..... Aug. 7 *45
Spokane, Wash. radio tower changed to television station ..... Dec. 11 n*23
TV antenna tower and transmitter (unit prices) ..... Sept. 4 189
Water tower moves on ball bearings on steel tracks ..... Oct. 16 54

Training

Military manpower gets shorter but apprentice program continues Aug. 14 *28
Sanitary engineer training A. F. Meyer Jr. ..... Sept. 11 10
Summer camp is high point in engineer cadet training ..... Aug. 28 *46
What training for sanitary engineers? American Society for Engineering Education meeting ..... July 24 *40 e116
Tramways see Cables and cableways
Transportation — Labrador's railroad's construction supply is brought by every form of transport R. H. Dodds ..... Sept. 18 *38
Trucks
American Trucking Assn. favors higher taxes ..... Oct. 16 n26
Flatbed trucks haul girder sections to new use ..... July 3 *46
Trusses
Timber roof truss tested for small houses ..... Sept. 4 190
Wood truss for 1½ story houses tested ..... Oct. 9 *76

Tunnels

Alaska-Eklutna hydro project—tunnel is main feature R. C. Folkner Sept. 11 *35
Arizona's Green Creek highway tunnel lined by traveling steel forms July 24 *36
Baltimore plans twin tunnels ..... July 10 59
Belgium—tunnel, viaducts join rail stations in Brussels G. N. Ralbachevska ..... Oct. 9 *40
Bombay, India, water supply tunnels complete (map) ..... Oct. 23 *60
Colorado Rockies highway tunnel priced ..... Oct. 9 138
Detroit Dam, Ore., diversion tunnel sealed with concrete logs ..... Aug. 7 *53
Hampton Roads, Va. tunnel-bridge causeway recommended ..... Oct. 2 25
Honolulu wins fight for road tunnel ..... Sept. 11 53
Houston—wrangle halts work Sept. 11 44
Loveland Pass tunnel, Colo. recommended ..... Dec. 4 27
Moffat Tunnel not to have highway for motor traffic ..... Aug. 7 29
New York City
Lincoln Tunnel shaft (unit prices) ..... Oct. 23 99
Lincoln Tunnel's third tube ground broken ..... Oct. 2 25
Lincoln Tunnel third tube plans revealed ..... Oct. 23 57
Lincoln Tunnel's third tube to be speeded by Port Authority Aug. 21 87
Niagara Falls, Ont. tunnel for Sir Adam Beck plant holed through ..... Oct. 16 n*24
Pantographs give tunnel cross-section ..... Nov. 27 *40
Philippines—Ambuklao hydro project's diversion tunnels receives one bid ..... Aug. 7 72
Portsmouth-South Norfolk, Va.—porcelain-enamel panels introduced for hung-ceiling construction T. O. Blashke ..... Aug. 21 *37
San Francisco Broadway Tunnel open to traffic ..... Dec. 25 *48
Venezuela-Caracas-La Guaira highway construction requires two tunnels ..... Nov. 6 *60
Turner Construction Co. celebrates its 50th anniversary (picture of work) ..... July 17 *123

U

U. S. Army Engineers

Congress criticizes the Army Engineers for assuming "too much authority" ..... Dec. 18 21
Eight Congressional charges of waste ..... July 24 25
Overcommitment feud boils Sam Justice ..... July 24 *23
Purchasing centers switched ..... Sept. 4 363
Maj. Gen. Sturgis named to head ..... Nov. 13, n27; ..... Nov. 20 69
Summer camp is high point in engineer cadet training ..... Aug. 28 *46

U. S. Bureau of Reclamation

Construction projects for 1953 (table) ..... July 3 21
Overcommitment feud boils Sam Justice ..... July 24 *23
Plans to speed construction program ..... Aug. 7 24
Straus resigns as chief, bureau urges $2.1 billion budget ..... Dec. 25 26
U. S. Navy—Navy building to hit new peaks ..... Sept. 4 *74
Unit prices. July 3, 106; July 17, 132; July 24, 92; July 31, 79; Aug. 14, 126; Aug. 21, 94; Aug. 28, 80; Sept. 4, 167; Sept. 11, 76; Sept. 18, 74; Sept. 25, 88; Oct. 2, 83; Oct. 16, 87; Oct. 23, 99; Oct. 30, 68; Nov. 13, 138; Nov. 20, 102; Dec. 18, 105; Dec. 25 62

* Illustrated; e, editorials; n, news

W

Walls

Cavity-type masonry walls at Lily-Tulip Cup Corp. Springfield plant ..... Dec. 25 *30
Cost of sandwich-panel walls ..... Sept. 4 *144
Sandwich wall panel of porcelain-enameled steel with core of insulating material to be developed ..... Aug. 7 62
Sandwich walls used by North Chicago, Ill. housing project ..... Aug. 14 *26
Tilt-up wall warehouse, East Hartford, Conn. ..... Oct. 16 *37
Tilt-up wood frame walls cut labor costs in Buffalo housing projects ..... Nov. 27 *30

Wastes, Industrial

Biosorption treatment for industrial wastes to be tried at Chambersburg, Pa. ..... July 3 *45
California completes a study of water quality criteria ..... Sept. 18 30
Industrial waste charges W. D. Hatfield ..... July 3 10
Kent, Wash. accused of killing 10,000 fish by industrial wastes ..... Dec. 18 62
Morrisville, Pa. Fairless Works industrial wastes story (diagram) July 17 *44
Moving cylinders speed waste treatment tests ..... Nov. 20 41
New England Interstate Water Pollution Control Commission reports on industrial wastes ..... July 31 *41
Ohio pollution tests permitted by steel strike ..... July 31 12
Pennsylvania takes stock of its Clean Streams Program ..... Nov. 26 24
Plain City, Ohio, water softener sludge used to treat plating wastes Oct. 9 *45
Steel acid waste problem discussed by manual published by Ohio River Valley Water Sanitation Commission ..... Dec. 25 38
Waste sulphite liquor used as road "binder" ..... July 10 *42
Water mains—Cambridge to Boston water main tests contractor's ingenuity ..... Nov. 13 *44

Water Pollution

Buffalo to study project to cut pollution in the river and get more cooling water ..... Nov. 13 50
California completes a study of water quality criteria ..... Sept. 18 30
Campbell-Kenton Counties, Ky. sanitation project to be completed July 3 59
Canada to establish pollution control board ..... Aug. 14 67
Manhattan Beach, Calif. experiment with underground dam to stop sea water from entering water basin ..... Sept. 18 34
New England Interstate Water Pollution Control Commission reports on industrial wastes ..... July 31 *41
Ohio River pollution control advances ..... Nov. 13 55
Ohio River pollution—Louisville, Ky. and Sewer District fight over payment for treatment plant ... Dec. 18 55
Ohio River Valley Water Sanitation Commission publishes manual on steel acid waste problem .... Dec. 25 38
Ohio wields new water pollution club ..... Oct. 9 n24
Pennsylvania coal and sanitary bodies finance acid research activities Sept. 4 190
Pennsylvania municipalities to be re-examined in pollution crack-down ..... July 17 60
Pennsylvania State attorney balks at pollution crack-down ..... July 3 *58
Pennsylvania takes stock of its Clean Streams Program ..... Nov. 20 24
Raritan, N. J. clean-up now split in two ..... Oct. 16 n26
Raritan River sewer project dispute postponement requested by New Jersey townships ..... Aug. 7 *24
Raritan River sewer project to be revised ..... July 3 24
Richmond, Va. city council's request for new pollution survey of James River refused by U. S. Health Service ..... Nov. 13 50
Wabash River, Ind. cyanide accident ..... July 31 27
Wisconsin cities and industries receive anti-pollution deadlines ..... Sept. 11 25
Water pollution see also Wastes, industrial

Water Resources

Arizona to have more water? .. Aug. 14 e148
Central Valley Project purchase plan cause of controversy ..... July 24 *66
Congress urges close control of water resources department projects Dec. 18 21
Missouri River Valley compact approved by state representatives ..... Dec. 11 *26
Texas water resources and policy reported by ASCE section Dec. 4, n28; Dec. 11 e132
Water policy proposal nears finish ..... July 3 25

Water Rights

Arizona and California feud erupts over Colorado River ..... Aug. 21 25
Fallbrook case over water rights near Camp Pendleton settled in favor of U. S. ..... Dec. 18 n26
San Diego water area in dispute. Aug. 21 27

Water Supply

Australia plans water conservation ..... Nov. 6 68
Bombay, India, water supply tunnels complete (map) ..... Oct. 23 *60
Canada—Regina builds a 37-mile aqueduct ..... Sept. 18 *51
Dallas City council drops water tapping plan ..... Dec. 11 n51
Dallas takes more steps to alleviate water lack Nov. 6, 51; Nov. 13, 51; Dec. 4 n51
Distribution system for Colorado River Aqueduct to expand to serve Southern California ..... Nov. 27 *42
El Paso, Tex. retards salt encroachment in ground water by artificial recharge ..... Aug. 7 62
Greenville, S. C. water system (unit prices) ..... Sept. 4 181
Helena, Mont. water shortage causes clamor for change in government ..... Sept. 18 49
Liberia water and sewer project (unit prices) ..... Sept. 4 181
Los Angeles is building pipe to deliver Colorado River water to reservoirs ..... July 17 63
Manhattan Beach, Calif. experiment with underground dam to stop sea water from entering water basin ..... Sept. 18 34
Morrisville, Pa. Fairless Works builds a waterworks ..... July 10 *40
New Jersey urges action on water shortage ..... Oct. 30 n71
New York City water board reorganizes its staff ..... Nov. 27 43
Ohio River basin development program under consideration Aug 21 90 P. B.
Massey ..... Oct. 30 11
Philadelphia Suburban Water Co. investigated over water service July 3 62
Pittsburgh's water system is surveyed ..... Oct. 30 44
Rhode Island water development proposed ..... Sept. 25 n68
Saginaw, Mich. waterworks distribution (unit prices) ..... Oct. 16 87
San Diego water case to be tried ..... July 31 22
Texas water resources and policy reported by ASCE section Dec. 4, n28; Dec. 11 e132
U. S. Geological Survey issues reports on industrial water ..... Nov. 13 46

Water Treatment

Army's new truck-mounted electrical water purifier unit ..... Nov. 13 36
Chicago faces lawsuit to halt filter plant ..... July 17 68
Costa Rican fluoridation ..... Sept. 4 208
Hartford's water filters being built with grouted arch roof which is cheaper than flat slabs ..... Nov. 27 *36
Milwaukee delays fluoridation through failure to authorize ..... Aug. 28 44
N. Y. City turns down fluoridation ..... Sept. 4 159
Plain City, Ohio, water softener sludge used to treat plating wastes. Oct. 9 *45
Rochester, N. Y. water treatment plant (unit prices) ..... July 17 132
Salt Water Research Program gets assistance ..... July 24 42
San Diego, Calif. fluoridates, despite appeal in courts ..... Nov. 27 *44
Sea water desalting research work undertaken by Bureau of Reclamation Sept. 25 n69 correction D. M. Watt ..... Oct. 30 9

Waterways

Atlantic to Black Sea all-water route planned ..... Dec. 4 n56
St Lawrence Seaway
Canada starts plan despite U. S. uncertainty V T Boughton ... Sept. 11 *21
Contracts sought by European firm ..... Sept. 11 22
Deeper waterway ..... Nov. 20 e136
Developing the International Rapids section ..... Dec. 25 e84
Federal Power Commission hearing —outlook brightens for project (map) ..... Dec. 18 *24
International Joint Commission gives approval to St Lawrence plan ..... Nov. 6 n23
Study of waterway areas made Oct. 9 78
Weirs—Fort Randall Dam closure—Missouri River blocked with chalk-fill diversion weir ..... Aug. 14 *37
Welding
Bridge design competition awards made ..... Oct. 23 27
Concrete buildings in Great Britain erected with welded reinforcement up, first ..... Aug. 7 *68

Wharves and Docks

Baltimore ore-handling pier adds belt conveyor to double capacity. Oct. 30 *26
Guatemala to have new dock at Puerto Barrios ..... July 10 64
Long Beach, Calif. quay wall (unit prices) ..... Sept. 4 187
New Orleans planning port improvements ..... Oct. 9 *60
New York City
Pier 57 box No. 1 set ..... Aug. 14 *30
Pier 57 deck—prestressed stringers mass produced ..... Aug. 14 *33
Pier 57's floating boxes ready for trip ..... July 31 *36
Pier 57 foundation box towed to final site ..... Aug 7 *26 e132
Pier 57's girders are being cast ..... Oct. 30 *27
Plymouth Harbor pier and jetty (unit prices) ..... Sept. 4 189
Savannah State docks opened Nov. 13 *47
Venezuela—barge puts down legs, becomes pier W. T. Guenzel .... Dec. 18 12

Windows

Hung walls permit slanting windows for cotton mill's office building ..... Nov. 20 *26
Why windows discolor ..... Aug. 7 45

Wood

Laminated timber association formed ..... Nov. 13 n145
Latest developments in wood construction aired at Forest Products Research Society convention .... July 10 69
Trends towards wood because of metal restrictions ..... Aug. 7 29
Wood research abroad E. G. Stern ..... Sept. 18 11

World Health Organization

What is WHO? ..... July 31 *50

* Illustrated; e, editorials; n, news

AUTHOR INDEX

Authors

Abeles, P. W.—How to lower prestressing costs ..... Oct. 30 *32
Akerib, S.—Twin swing spans at Suez ..... July 31 10

Balbachevsky, G. N.—Tunnel, viaducts join rail stations and transform central Brussels ..... Oct. 9 *40
Baldock, R. H.—Weight-mile-tax costs ..... Dec. 18 12
Balog, Louis—Floating caissons ..... Sept. 11 6
Barrett, Russell S.—Not South Norfolk ..... Oct. 16 10
Batchelder, Rosalie—It's Bull Shoals, Ark. ..... July 31 12
Blair, P. F., Jr.—Prestressing gains ground ..... Nov. 27 12
Blakeslee, Harold L.—108 years old ..... Oct. 30 11
Blashke, T. O.—Porcelain-enamel panels introduced for tunnel hung-ceiling construction ..... Aug. 21 *57
Bloodgood, Don E.—Delete privy data ..... Dec. 4 15
Bourchton, Van T.—Canada starts Seaway plan despite U. S. uncertainty ..... Sept. 11 *21
Bowen, Gerald—Faith in model analysis ..... Oct. 9 14
Bowen, J. A. C.—Aid or trade? ..... Oct. 2 14
Bowmton, Ray. M.—Was viaduct support stable? ..... Aug. 7 *7
Britton, Ralph R.—Can snow loads be reduced? ..... Sept. 18 13
Burch, C. E.—Caissons support river-front power plant ..... Nov. 27 *33
Butler, Edwain R.—Timber not Timken ..... Oct. 2 8

Cain, Craig J.—Fly-ash picture grows ..... Dec. 18 11
Carr, J. Roland
Five steel companies push taconite plans ..... Dec. 11 *40
More adequate highway financing sought by state road officials ..... Dec. 18 *23
Cheskin, David B.—Diagonal tension blamed ..... July 3 10
Chilcote, W. L.—Highway department tests fly-ash in pavement mixes ..... Oct. 23 *40
Chutter, S. D. C.—Still another oldest ..... Aug. 14 15
Cole, C. C.—Use of two colors in flags helps road survey work ..... Nov. 20 88
Cooke, Morris Llewellyn—Why so few engineers? ..... Aug. 14 12
Coon, A. Harden—Another oldest ..... July 17 6
Crimmins, Robert—Older firm ..... July 10 14
Cundall, K. N.—Colored surfaces ..... Dec. 11 11
Cutler, R. H.—Combine drawings, specifications ..... Dec. 4 *62

De Serio, James N.—Teamwork beats tight budget on complex school design ..... Oct. 16 *41
Dodds, Robert H.
Big problem on Labrador railroad ..... Sept. 18 *38
How the construction business goes in Alaska ..... Dec. 11 *32
Labrador railroad pushes north to iron range ..... Sept. 11 *38

Eaves, Elsie—Water use, soil and transport feature Puerto Rico meeting ..... Nov. 27 *55
Eney, W. J., R. B. Seymour & W. R. Pascoe—Easy ways you can strain-test sulfur-compound pipe jointing ..... Oct. 16 *38
Ericson, Ole P.—Portable dredge pays off ..... Dec. 11 11
Evans, Henry K.—Federal aid for roads ..... Oct. 2 14

Feld, Jacob—Pipe-jacking limits ..... Dec. 25 12
Felkner, Byron G.—Eklutna is USBR's first project in Alaska ..... Sept. 11 *35
Flesher, William—Question of age ..... Nov. 20 14
Fox, Arthur J. Jr.
Levittown, Pa. . . a city from scratch ..... Dec. 4 *34
Sewage works group urged to kick off shackles of tradition in the future ..... Oct. 16 27
Franklin, Jerome D.—Minimum speeds ..... July 10 11
Freund, C. S.—Wrong type of roof ..... July 31 12

Gambatese, Joe
AFL hans use of pickets in jurisdictional disputes ..... July 24 *21
Building trades veteran heads AFL ..... Dec. 4 *29
Union troubles are Dunlop's business ..... Sept. 18 *42
Gannett, Farley—Border-line toll roads have possibilities ..... Dec. 25 41
Gibson, Thomas F.—Favors alternate designs ..... Sept. 11 6
Graham, Felix R.—Tomorrow's lighting is here today ..... Oct. 30 *37
Greulich, G. C.—Unfinished structural business ..... Dec. 4 11
Guengel, W. T.—How barge climbs supports ..... Dec. 18 12
Gumpertz, Werner H.—Building course available ..... Nov. 6 13

Hadley, Homer M.
In favor of alternate designs ..... Nov. 20 14
Negative competition ..... Nov. 13 14
Harwood, Dick—Executive "vacations" in the fields ..... Aug. 28 *50
Hatfield, W. D.—Industrial waste charges ..... July 3 10
Heavey, W. F.—Biggest crane? ..... July 10 14
Herb, Col. E. G.—Grand River flooding cut by controlled discharges ..... Aug. 28 *36
Herbruck, C. G.—Wrong address ..... Nov. 13 14
Higgins, T. R. & W. H. Munse—How much combined stress can a rivet take? ..... Dec. 4 *40
Huggins, E. V.—Reason for delay ..... Dec. 25 12

Jessup, John R.—Housing project has faceted walls ..... Nov. 6 *42
Jett, William S. Jr.—Why so few engineers ..... Oct. 16 16
Johnstone, Alan—Complete interpretation ..... July 31 10
Justice, Sam
Election shakes up outlook for federal construction ..... Nov. 13 *23
Overcommitment feud boils ..... July 24 *23

Kearns, Bill—Moroccan base probe seen misfiring ..... Sept. 4 *71
Kentoop, Henry E.—Clear glass vs glass blocks ..... Nov. 20 10
Koch, Fred O.—Opposes contractor designs ..... July 31 10

Lambert, Frank—Emphasis on contouring ..... Nov. 27 15
Layne, Abner—Public and private housing interests mingle at NAHO convention session ..... Oct. 23 *25
LeBosquet, M. Jr.—Defense community works ..... July 24 10
Leviant, I.—French canal lining ..... Dec. 25 12
Logan, H. L.—A fresh look at three lighting problems ..... July 3 *40
Long, Lester—Pipe is cast iron ..... Oct. 9 14

Macfarlane, R. B.—Contractor designs ..... July 31 10
Mason, Paul B.—Ohio River basin development ..... Oct. 30 11
Matheis, Fred—Get more out of belt conveyors ..... Aug. 21 *40
Mayer, Charles—Tolls should be cut ..... Nov. 13 14
McKee, F. S.—Why so few engineers? ..... Sept. 18 11
Merritt, F. S.—Experts talk tropical building ..... Nov. 27 57
Meyer, Alvin F. Jr.—Sanitary engineer training ..... Sept. 11 10
Monsey, Arthur Jr.—More on alternate designs ..... Oct. 16 14
Moore, Lewis E.—Rocker should be wheel ..... Oct. 2 13
Morgenthaler, Clair N.—Moroccan airbase reporting ..... Dec. 25 12
Morrison, I. E.—Formulas preferred ..... July 17 6
Munse, W. H. & T. R. Higgins—How much combined stress can a rivet take? ..... Dec. 4 *40

Pasarew, I. Alvin—What measures size? ..... July 10 11
Pascoe, W. R., W. J. Eney & R. B. Seymour—Easy ways you can strain-test sulfur-compound pipe jointing ..... Oct. 16 *38
Pedersen, P. S. Munk—Old firm ..... July 10 14
Pierson, W. R.—Flexible concrete revetment ..... Nov. 27 12
Pinter, George S.—Shear broke waffle slab? ..... July 3 10
Post, L. Abbett—Right bridge, wrong caption ..... Oct. 30 9

Robinson, James N.—Chart for direct concrete beam design ..... Nov. 6 *45

Schwarz, Alfred—Are test cells adequate? ..... Oct. 2 8
Seelye, Elwyn E.—Why waffle slab failure ..... Oct. 23 *10
Seymour, R. B., W. J. Eney & W. R. Pascoe—Easy ways you can strain-test sulfur-compound pipe jointing ..... Oct. 16 *38
Smith, Vincent B.
Construction details bared on Thule air base project ..... Oct. 2 *21
Defense construction plans reshuffled ..... Nov. 6 *21
Steelman, Julian R.—Likes toll road story ..... Aug. 7 16
Stern, E. George—Wood research abroad ..... Sept. 18 11
Strauss, Max W.—The shortages of engineers ..... July 31 10

Taylor, Preston—Novel use of a kite ..... Nov. 13 76
Treiber, Kenneth L.—Short-cut to maturity ..... Nov. 6 13
Varila, Karl O.—Analog circuit solves open channel problem ..... Dec. 4 *44
Warner, Louis A.—Engineers and contractors ..... Oct. 16 10
Watt, D. M.—Decimal point astray ..... Oct. 30 9
Wenzley, O. F.—Clear glass vs glass blocks ..... Nov. 20 10
Weston, I. Vernon
Legal decisions: July 17-84; Sept. 4-226; Oct. 9-105; Oct. 23-66; Oct. 30-56; Nov. 13-68; Dec. 4-78; Dec. 25-54
Werblow, Joseph M.—Standardized building makes smart office ..... Nov. 20 *37
Wetzig, A. K.—How careless! ..... July 17 10
Wise, L. L.
Setting up shop in the wilderness for huge hydro project ..... Sept. 25 *32
What's next for Los Angeles sewerage? ..... Aug. 21 *32
World's largest underground power plant ..... Nov. 13 *31

Young, Truman P.—Controversial rocker ..... July 24 *10

* Illustrated; e, editorials; n, news